



Lethabo Air Quality Specialists (Pty) Ltd

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ES Environmental Services CC
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28 January 2020

Attention: Mr. Betsy Ditcham

Dear Ms Ditcham

Thank you for your enquiry for an air quality impact assessment. It is much appreciated.

Our quotation No. QTE-00127 is attached herewith for your attention. Please do not hesitate to contact me if there are any uncertainties, or if I can provide any additional information.

Regards

Chris Albertyn
Director



PROPOSAL No. QTE-00126 TO:

SES ENVIRONMENTAL SERVICES CC

for:

SPECIALIST AIR QUALITY IMPACT ASSESSMENT

ROOIKAT RECYCLING, MOSSEL BAY



1 INTRODUCTION

Messrs SES Environmental Services (SESCC) provides consulting services to a wide variety of industries. One such client, Rooikat Recycling (RR), wishes to install a plastic and rubber recycling plant near Mossel Bay in the Western Cape.

The process that will be applied by RR entails the treatment of rubber and plastic in a pyrolysis process to produce carbon black and heavy fuel oil (HFO). The process and planned products are included in the *List of Activities That Result in Atmospheric Emissions* as published in Government Notice 893 of 2013 (GN893). The following classification applies:

Sub-category 8.1: Thermal treatment of general and hazardous waste. Facilities where general and hazardous waste are treated by the application of heat and included and applies to all installations treating more than 10 kg waste per day.

Depending on the quantity of carbon black that will be produced, the following classification may also be applicable:

Sub-category 3.4: Char, charcoal and carbon black production applies to all installations producing more than 20 tons per month

RR appointed SESCO to obtain the necessary environmental authorisation for the process. As the planned process is highly likely to require an atmospheric emissions license (AEL) to operate, SESCO requested assistance from Lethabo Air Quality Specialists (Pty) Ltd (LAQS) in this regard.

This proposal describes the steps that LAQS will carry out in its assessment of the impact of emissions on air quality in the vicinity of the plant.

2 SITE VISIT

LAQS will visit the site to inspect the operations and to discuss the project with SESCO, RR representatives and the licensing authority (Garden Route District Municipality – GRDM). The site visit will be scheduled in consultation with the client.

3 AIR QUALITY IMPACT ASSESSMENT

Extensive dispersion modelling work will be required to assess the air quality impact of RR's emissions, the aim being estimation of the ground-level concentrations of pollutants emitted from the proposed operations. LAQS will focus on those pollutants included in the list of controlled substances for which ambient air quality standards have been published.

Use will be made of AERMOD, a validated and USEPA-approved dispersion model, to estimate the ground-level concentration of pollutants. This model is included as an acceptable model in the *Regulations Regarding Air Dispersion Modelling* as published in Government Notice R.533 of 11 July 2014 (GN R.533).

A digital map of the area will be imported so that plume dispersion can be indicated relative to surrounding areas as estimated ground-level concentration isopleths.



The outcome of the dispersion model will be compared with official ambient air quality standards, where available, as published in Government Notice 1210 of 24 December 2009 (GN1210) to determine if emissions from the plant result in exceeding of the air quality standards.

4 EMISSIONS DATA

Dispersion modelling requires detailed definition of emissions from the process as well as specific details about the point of emission. LAQS will provide a customised questionnaire aimed at gathering specific details from the proposed process. It is the client's responsibility to ensure that requested information is provided as fully as possible to ensure that reliable emissions are determined.

Annual emissions will be calculated according to the requirements of GN R.533. Where necessary use will be made of internationally published emission factors, e.g. USEPA, Australian NPI, etc., to calculate annual emissions from the various operations.

LAQS will compile all of the technical emissions data required for an AEL application.

5 METEOROLOGICAL DATA

In addition to emissions data, the dispersion model requires a comprehensive set of meteorological parameters. Weather data will be procured from suitable sources, e.g. South African Weather Service (SAWS), etc.

6 REPORT

The outcome of LAQS's findings will be discussed in a detailed report which will be published on completion of the work. A draft report will be submitted for comment to SESCC. Comments received will be evaluated and addressed in a final report.

7 COSTS

The costs of the work described above are listed in the quotation attached to this proposal.

Provision is made for a site visit as it will allow LAQS to familiarise itself with the area and to discuss the information required by LAQS with SESCC and RR representatives.

8 EXCLUSIONS

LAQS will not levy any costs to respond to any comments that may arise from the work described in this proposal, whether it be from SESCC, RR, licensing authorities or the public.

The quotation includes costs for a single visit to the area. Should additional visits be required, e.g. for public participation meetings, meetings with authorities, etc. additional costs will apply per visit.



The information obtained during assessment of emissions and the outcome of the dispersion modelling study may result in the licensing authority requiring a cumulative impact assessment in which emissions from all nearby sources are included. The costs associated with such work not included in this proposal.

9 INFORMATION REQUIRED

LAQS will provide a customised questionnaire aimed at collecting all relevant information. It must be borne in mind that any and all information provided to LAQS will be treated as strictly confidential and will not be provided to any third party without the written approval of RR. It is the client's responsibility to ensure that the questionnaire is completed as fully as possible to minimise assumptions and concomitant uncertainties.

10 GENERAL TERMS AND CONDITIONS

The outcome of the air quality impact assessment will be made available as soon as possible on completion of the work. LAQS usually provides draft reports within 10 working days from submission of all required information, depending on its work-load at that time.

An official purchase order and completion of the attached Letter of Appointment are required before the work can commence.

A deposit of 25% of the project costs must be paid on submission of the purchase order and Letter of Appointment.

A tax invoice to cover the balance of the costs will accompany LAQS's final report and the terms of payment of the invoice are strictly 30 days from date of invoice. A discount of 2.5% may be claimed for full payment of all invoices within fourteen days of date of the invoice.

All reports published by LAQS will remain the sole property of LAQS until paid for in full by the client. As a result no report may be copied, transmitted, or used in any way, whether in part or in full, without the written approval of LAQS until the work has been paid for in full.

C H Albertyn PrEng, CEng, QEP

28 January 2020