

Application for postponement of NEM:AQA Minimum Emissions Standard (MES) compliance time frames for Consol Glass Plant in Wadeville, Gauteng Province

BACKGROUND INFORMATION DOCUMENT

21 February 2019

PURPOSE OF THIS DOCUMENT

This Background Information Document (BID) has been structured to provide all potential Interested and Affected Parties (I&APs) with a concise overview of the proposed project activities as well as the associated licencing and permitting processes. Furthermore this BID also intend to provide I&APs with information relating to the manner in which I&APs can voice any issues concerning the proposed project. The compilation and distribution of this BID form part of the Public Participation Process for the project.

Stakeholder that complete and return the registration form included with the BID, will be included in the stakeholder database and receive further documents for review and comment. Your comment will ensure that all issues of concern are incorporated. To raise your concerns, please complete the enclosed registration sheet, write a letter, call or e-mail the public participation office. All documents will be available on the internet at www.zitholele.co.za/environmental, under heading "Consol Glass MES Postponement Applications".

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1. BACKGROUND AND DESCRIPTION OF THE PROJECT

Consol Glass (Pty) Ltd (Consol) is Africa's largest glass manufacturer. The South Africa operations produce glass packaging products for a wide range of industries in the beverage and food sectors. Consol directly export products to 17 different countries, primarily in the broader sub-Saharan African region. Consol has been manufacturing glass for more than 70 years and has the capacity to produce approximately 850,000 tonnes of container glass per annum in its four glass manufacturing plants. Consol's Wadeville plant, located at 1 Rossouw Road, Wadeville, Ekurhuleni, Gauteng, has an annual production rate of approximately 155,000 tonnes of glass.

Consol Glass (Pty) Ltd currently operates a glass container manufacturing plant in Wadeville, Germiston. This plant is operated in terms of its current Atmospheric Emission Licence (AEL), which was issued by the licencing authority, Ekurhuleni Metropolitan Municipality (EMM), on 15 December 2016. The AEL authorises Listed Activity 5.8 (Production of glass containers, flat glass, glass fibre and mineral wool) to be undertaken at the facility.

The 2013 Minimum Emission Standards (MES) published under the National Environmental Management: Air Quality Act, No 39 of 2004 (NEM: AQA) specify limits for 'existing plants' effective from 1 April 2015, and more stringent 'new plant' limits, to which existing emitters need to comply with by 1 April 2020. Existing plants operated by Consol Glass therefore need to comply with the MES for new plant by 1 April 2020.

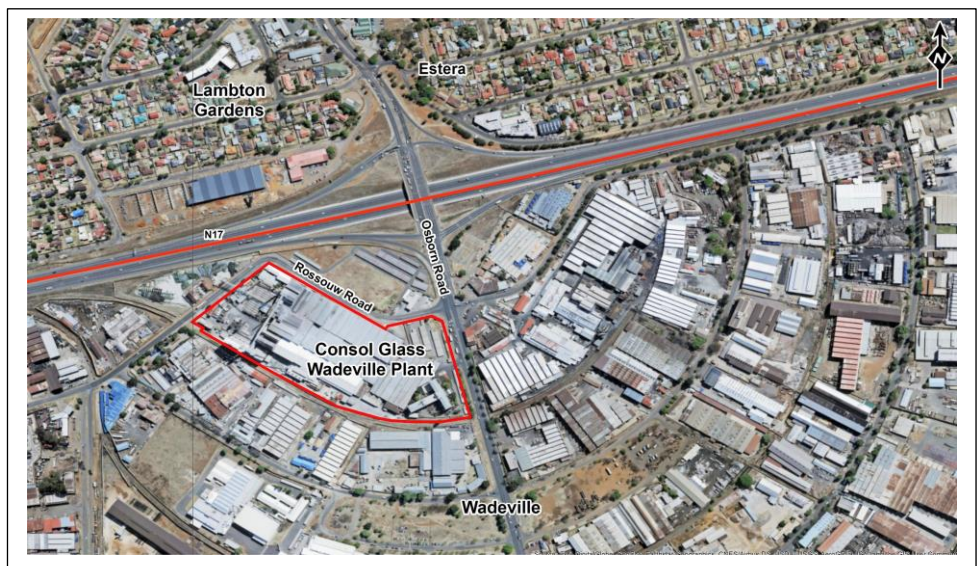


Figure 1: Location of the Console Glass Plant in Wadeville, Germiston

2. DESCRIPTION OF THE STUDY AREA

The study area is located at 1 Rossouw Road, Wadeville, which is approximately 5km south of the Germiston Central Business District within the jurisdiction of Ekurhuleni Metropolitan Municipality (EMM), Gauteng Province. The site can be accessed via Osborn Road turning into Rossouw Road, which is located on the northern boundary of the study area.

3. THE GLASS MANUFACTURING PROCESS

The production process of glass includes the steps of batching, melting, forming, annealing and inspection. After forming the glass containers, the inspection process then ensures that the containers comply with strict quality standards. Any rejected containers from the inspection process are re-covered and re-enter the production process eliminating waste and reducing emissions. This is a continuous process over the lifetime of the furnace where raw material is fed into the furnace at the same rate as which containers are produced. Such a lifetime differs between furnace suppliers, but is generally expected to be between 10 and 12 years. Thus any interruption, no matter how long or short deteriorate the life expectancy of the furnace and come at a huge cost to the business.

Part of Consol's Corporate Social Investment and environmental responsibility includes the process of procuring glass from the market and operating recycling plants that process the material to sufficient quality standards to be reused in the manufacturing of glass containers. Glass is 100% recyclable and through this process is recycled in country at the company's Bellville and Clayville operations to reduce the environmental influence on transporting this glass between the northern and southern parts of South Africa. The locations were specifically selected in the main centres at the biggest operations to ensure efficiency in the supply chain and limit further emissions through transportation of glass.

4. NEED AND DESIRABILITY OF THE PROJECT

Consol is committed to compliance to the NEM: AQA and the commitments stipulated in the AEL. Furthermore, Consol has on a continuous basis complied with the national ambient air quality standards (NAAQS) as set out in NEM: AQA, Standards and Regulations and strives to continuously improve their compliance track record. Consol has engaged on various platforms with other industries and is in the planning process to ensure compliance to the much stricter 2020 MES for PM, as all other pollutants are compliant with the respective standard.

Due to the complexities of glass manufacturing process, the feasibility of shutting down a furnace mid-way through its lifetime is not an option. Scheduled maintenance occurs at the end of life where furnaces are then cooled down and refractory material replaced as well as structural elements where required. Such maintenance interruption occurs over a two to three month period which then provides an opportunity to modernise and update if required.

The scheduled maintenance interruptions will be the ideal time to install the necessary abatement equipment onto the existing furnaces in order to comply with the 2020 'new plant' standards. As Consol will be submitting postponement applications for the Nigel and Clayville plants in Gauteng as well, endeavours will be made to install abatement equipment in each of the operations in a phased approach over a five-year period commencing from 2020.

Consol is requesting postponement in order for the business to align the installations of and connection to abatement equipment with the furnace shut downs over the next five years to ensure compliance with the 'new plant' MES.

5. LEGAL REQUIREMENTS

Consol's Wadeville plant is currently in possession of an AEL authorising the undertaking of Listed Activity No. 5.8, issued by the Ekurhuleni Licensing Authority. This plants are therefore required to meet the MES under normal operating conditions contained in GN 893. In accordance with Section 21, an existing plant must comply with MES for new plants by 1st April 2020, as presented in Table 1.

Table 1: Subcategory 5.8 Glass and Mineral Wool Production

Description:	The production of glass containers, flat glass, glass fibre and mineral wool.		
Application:	Facilities with a capacity of producing more than 100 tons/month of glass.		
Substance or mixture of substances		Plant Status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa
Common Name	Chemical Symbol		
Particulate matter	N/A	New	30
		Existing	140

The most recent amendment to the list of activities and associated MES was published under GN No. 1207, Gazette No. 42013 dated 31 October 2018. In terms of Regulation 11A of GN 1207 an existing plant may apply for postponement with the compliance timeframes for MES for 'new plant' to the NAQO.

6. ABATEMENT TECHNOLOGY OPTIONS

Consol propose to reduce PM emissions through either a) electrostatic precipitators (ESP) or b) ceramic candle filters. An ESP is a filtration device that removes fine particles, like dust and smoke, from a flowing gas using the force of an induced electrostatic charge minimally impeding the flow of gases through the unit. The melting furnace contributes over

99 % of the total emissions from a glass plant, both particulates and gaseous pollutants. ESPs have an efficiency up to 99 % in the collection of particulates.

Glass plants have used ceramic filter systems for the control of furnace emissions for a number of years. The companies that first adopted the technology on a commercial scale have elected to build additional systems, and other companies have followed. Ceramic filter systems are currently operating using low density rigid ceramic filters for other hot gas applications are found wherever there is a need to remove PM, sulphur dioxide and nitrogen dioxide using a single pollution control device.

The various factors associated with each of these devices will be taken into account during the planning process when selecting the most apt abatement technology. The key consideration is that regardless of which technology is selected, the abatement systems will be designed and guaranteed to comply with the new plant MES.

7. POSTPONEMENT OF COMPLIANCE TIMEFRAMES PROCESS

An application for postponement of MES compliance timeframes are prepared in accordance with Regulation 12 of GN 893, as amended, and includes the following documentation:

1. Atmospheric Impact Report (AIR) prepared in accordance with the Regulations prescribing the format of the AIR (GN No. 747, Government Gazette 36904 dated 11 October 2013). The modelling that informed the AIR was conducted in accordance with the Regulations regarding Air Dispersion Modelling (ADM);
2. Motivation and Justification for the Postponement Application; and
3. Public Participation Process Report outlining the public participation process (PPP) conducted in accordance with the National Environmental Management Act (NEMA), Act 107 of 1998 Environmental Impact Assessment Regulations (GN No. 1540). This report includes public comments and responses.

8. PUBLIC PARTICIPATION PROCESS

As an important element in undertaking the postponement application process for the proposed project, Zitholele Consulting will conduct the public participation process as set out in the NEMA EIA regulations, as amended. Applicable guidelines and best practice procedures will furthermore be taken into consideration. The public participation process will enable stakeholders to contribute to the process through information sharing and to review and comment on the postponement application documentation prior to submission to the licencing authority. The steps of the public participation component are outlined in Figure 2.

As part of the PPP, a 30-day public review and comment period, which provide the opportunity to review and comment on the application for Postponement of the Compliance Timeframes for the Consol Wadeville Plant, will commence on 21 February 2019 and conclude on 25 March 2019.

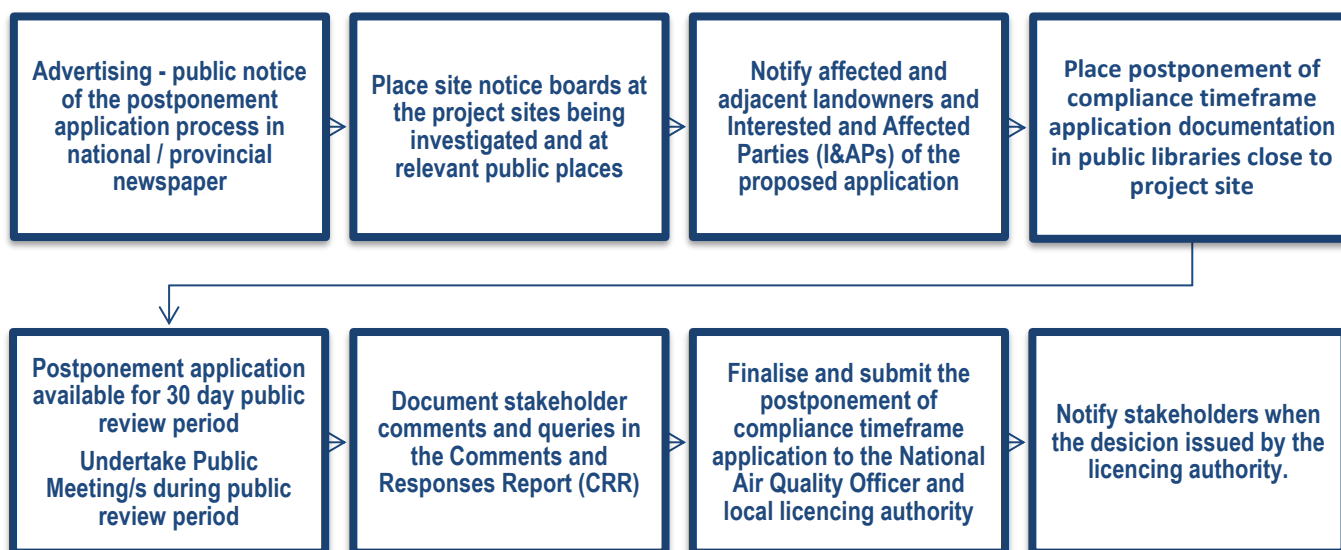


Figure 2: Process Flow of the Public Participation Process

Public Meetings will be held to provide stakeholders and I&AP the opportunity to engage with the applicant and team during the public review period. Details of the public meeting will be communicated to all registered I&APs at least 2 weeks prior to the public meeting taking place to provide sufficient time to coordinate their attendance at the meeting.

9. AVAILABILITY OF APPLICATION DOCUMENTATION

The postponement application documentation and related information for the Wadeville Plant will be available for public review at the following public venues from 21 February 2019:

Consol Plant	Public Venue	Address
Wadeville	Elsburg Library	Maritz Street, Elsburg, Germiston
	Consol Security Office	1 Rossouw Road, Wadeville

Information pertaining to the individual applications and public meetings can be viewed on Zitholele Consulting's website: www.zitholele.co.za/environmental/, under heading "Consol Glass MES Postponement Applications", sub-heading "Wadeville Plant" and at the public venues listed above.

10. PUBLIC COMMENT ENCOURAGED

Interested and Affected Parties (I&APs) are invited to participate by registering as an I&AP and commenting on the application documentation in the following ways:

1. Download BID at the link: www.zitholele.co.za/environmental/, under heading "Consol Glass MES Postponement Applications", sub-heading "Wadeville Plant", or obtain copy at the public venues mentioned in this BID.
2. Register in writing by completing and returning the registration form attached to the BID to the PPP desk at the contact details specified below.
3. Register via SMS by texting **consol wadeville**, followed by your name, contact numbers and email address to 45776 (bundled and free SMSes not applicable).
4. Request BID or more info from PPP desk at contact details specified below.
5. Review and comment on documents made available on the Zitholele Consulting website: www.zitholele.co.za/environmental/, under heading "Consol Glass MES Postponement Applications", sub-heading "Wadeville Plant".

I&APs may contact the PPP desk at the following detail below:

Zitholele Consulting (Pty) Ltd, Dr. Mathys Vosloo / Mrs Tebogo Mapinga
Tel: (011) 207 2060, Fax: 086 674 6121, Email: consolbar@zitholele.co.za
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11. MAP OF PROJECT LOCATION

A locality map of the proposed project can be found in Figure 3 below.

12. BID COMMENT SHEET

A comment sheet associated with this application is included at the end of this BID. Please complete and return to the PPP desk by hand delivery to the offices of Zitholele Consulting, scan and email to the email address provided, fax to fax number provided or by submitting your comments telephonically to the PPP desk via the landline number specified in the left column on page 1 of this BID.

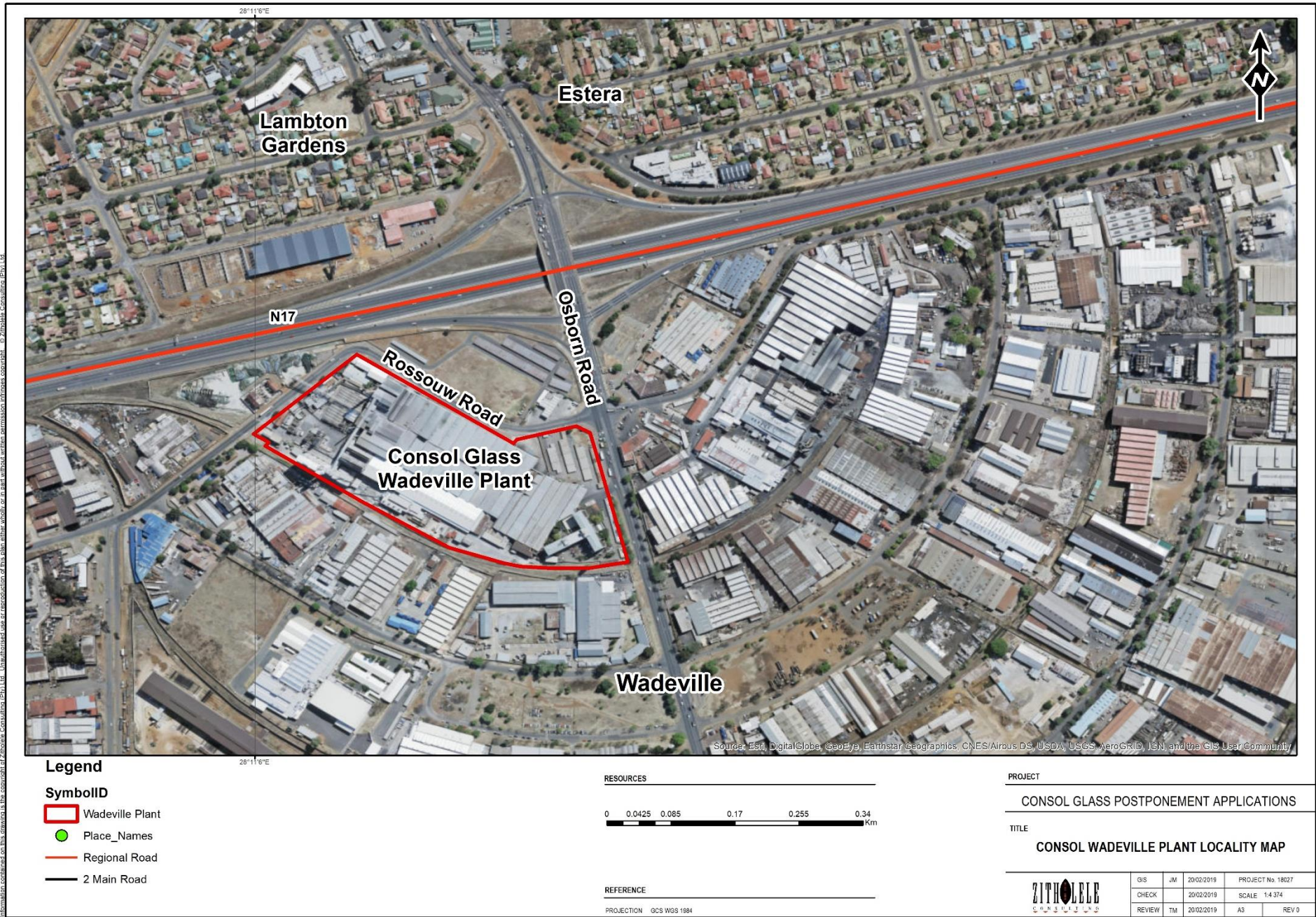


Figure 3: Locality Map of the Consol Wadeville Plant

