

BACKGROUND INFORMATION DOCUMENT (BID)
FOR THE PROPOSED DEVELOPMENT OF CAUSTIC SODA MAKE-UP
PLANT IN EKURHULENI METROPOLITAN, CHLOORKOP, KEMPTON PARK – GAUTENG
PROVINCE





TABLE OF CONTENTS

1. Introduction.....	1
- Purpose of this document	1
- Background	1
2. The Applicant	2
3. Project Overview.....	2
- Rationale.....	2
- Description.....	2
4. Environmental Authorisation.....	3
- Technical Process.....	3
- Scoping Phase.....	3
- Impact Assessment Phase.....	4
5. Public Participation Process.....	4
- Scoping Phase.....	4
- Impact Assessment Phase.....	4



AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

Background Information Document (BID)

PROJECT REFERENCE NUMBER: GAUT-002/20-21/E2748

INTRODUCTION

PURPOSE OF THIS DOCUMENT

The purpose of this Background Information Document (BID) is to inform interested and affected parties (I&APs) about African Chemicals (Pty) Ltd's application for an Environmental Authorisation to establish a Caustic-Make-up plant in Kempton Park, Gauteng Province, South-Africa. The proposed development aims to operate autonomously with its own slip road, security access, weighbridge, warehouse, production facility, tank farm, staff and technology.

I&APs are invited to participate in the application process by studying project documentation, contribute information by corresponding with the public participation office or the technical team at addresses provided below, and at meetings and workshops that will be held during the application process.

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BACKGROUND

The chemical industry has been an integral part of the global economic landscape for many centuries. The industry evolved to become the mainstay of productivity that pervades through nearly every good-producing sector. Today, the chemical industry plays a crucial role in regional economies in every corner of the world – and in most sectors of those economies.

As the manufacturer of innovative, life-enhancing products and technologies, the industry is also central to achieving the global targets in many of the Sustainable Development Goals (SDGs). Since chemicals touch each aspect of development, their sound management supports the completion of many other SDGs. Sound management of chemical substances is a specific focus under SDG 12 on sustainable consumption and production. However, sound chemicals management represents only a fraction of the industry's contribution to achieving the SDGs.

Although many of the products and processes developed by the industry have substantial positive impacts on global development, they cannot be produced outside environmental and other legal frameworks. It is a requirement that reasonable legislative and other measures must be adhered to in order to mitigate against adverse environmental impact, prevent pollution and ecological degradation, and secure ecologically sustainable development while promoting justifiable economic and social development.

It is for these reasons that an application for environmental authorisation is lodged with the competent authority in terms of Chapter 4 of the Environmental Impact Assessment Regulations as amended.

THE APPLICANT

The applicant is African Chemicals (Pty) Ltd (AC), an industrial chemical manufacturing, marketing and distributor of caustic soda flakes and pearls (sodium hydroxide), caustic soda (sodium hydroxide), copper sulphate, sodium sulphate, sodium silicate, soda ash, sulphuric acid and hydrochloric acid. The company's vision is that of African industrial consumers empowered with quality chemical products and services in a manner that reduces and optimizes their total costs.

Its strategy is to supply quality chemical products through innovative supply chain mechanisms which seek to minimize the customer's total cost of ownership. With its operating office in Johannesburg, the company is strategically located to deliver products to any location in South Africa and the Southern African Development Community (SADC) region through low cost and reliable transportation done through its third-party allies.

PROJECT OVERVIEW

RATIONALE

Caustic soda is an inorganic compound which finds application in several various end use industries such as pulp and paper, alumina, organic chemicals, inorganic chemicals, textile, water treatment, food processing, soaps and detergents and others. It has outstanding ability to dissolve or extract, hence its major use in the paper and pulp and alumina sector. The product is also heavily used as a feedstock for production of a large number of chemicals.

In 2017, caustic soda market prices witnessed drastic hike due to increased demand and tight supply. In 2018 price hike remained stable owing to rising demand from alumina producers around the world, especially in Asia. Up until 2019, the caustic soda market demand was highly motivated by strong economic activity and growth of prominent end use industries such as alumina and paper and pulp.

Rapid industrialization, strong pulp and paper industry, Covid-19 impact on demand of soaps and cleaning agents and water treatment are key factors driving the caustic soda market. The Covid-19 pandemic has increased awareness of personal hygiene thus augmenting the demand for soaps and cleaning agents. Strong product demand from chemical industry and alumina producers are major factors expected to drive the growth of the global market.

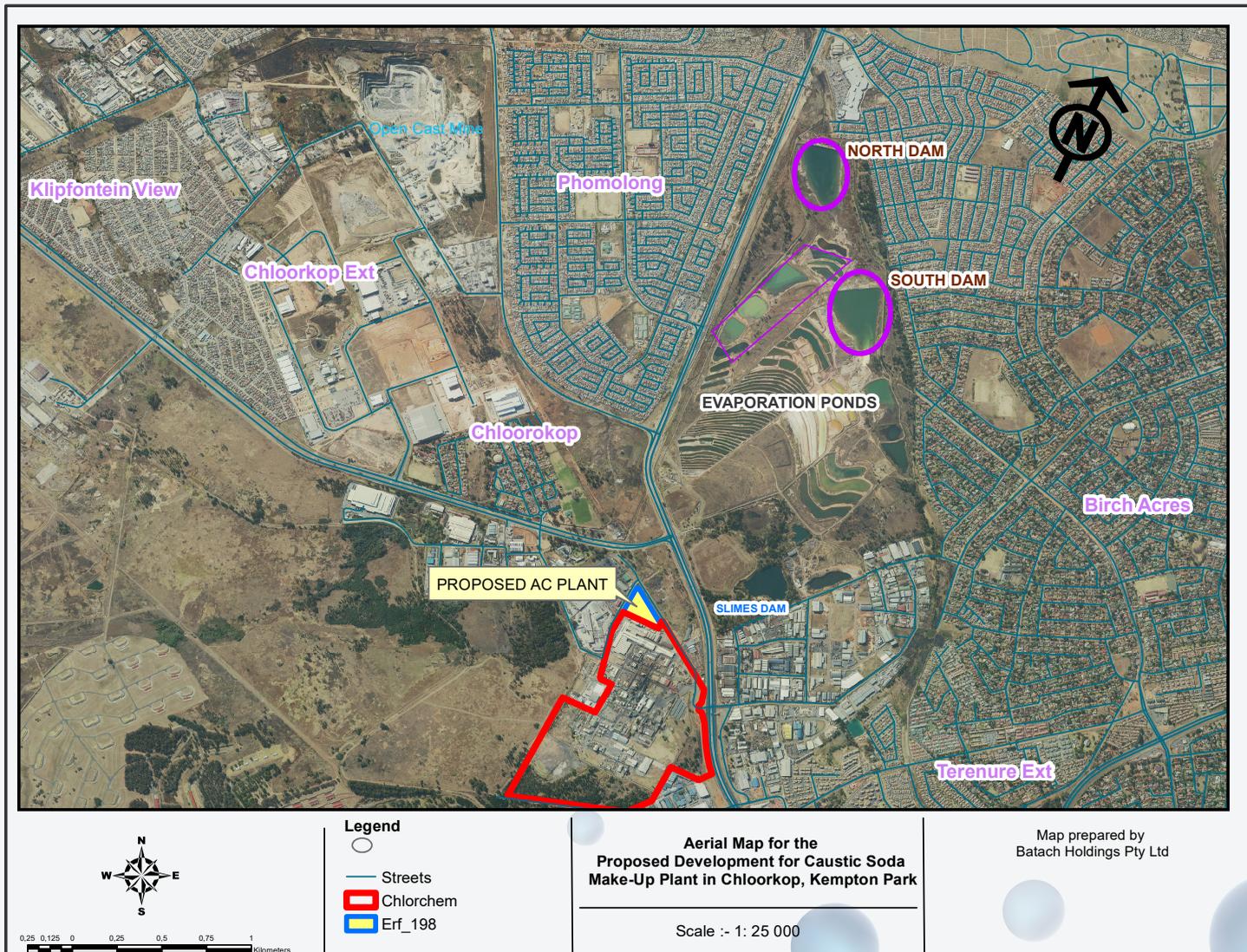
DESCRIPTION

African Chemicals (AC) proposes to construct and operate a Caustic-Make-up plant. The proposed construction and operation will be situated at ERF No 198 IR, Chloorkop, within the City of Ekurhuleni metropolitan in Gauteng Province. The proposed development aims to operate autonomously with its own slip road, security access, weighbridge, warehouse, production facility, tank farm, staff and technology. The access to the site is via a well-maintained public tar road (Ossewa Street) that turns off from the motorway M39 (Zuurfontein Road). The address being No 2 Hytor Street, Chloorkop, Kempton Park, Gauteng Province – Ekurhuleni Metro – South Africa (see Map below).

The product will be imported in solid form, transported by road to the newly built facility in Chloorkop where it will be dissolved back into lye form before placing it in the market. The dissolution, storage and loading all form part of the Caustic Soda Makeup Plant.

- An estimated 5000 tonne of caustic lye will be produced per month at 45–50% weight by weight (w/w).
- The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse.
- The Caustic Lye, at a 50% w/w concentration will be stored at 40 degrees Celsius in heated bulk storage tanks to prevent crystallization.
- NaOH production output to produce a 49% (v/v) concentrated product which is saleable to the market without costly dehydration process which uses high temperature.
- The plant will be the 5th largest source of caustic soda in Southern Africa and will service inland consumers and SADC countries.

- The plant is designed to be fully automated and the make-up tank will be fed through weigh feeders which will ensure consistent product quality. Online product analysers will be installed and display product quality in real time.
- Intermediate bulk containers (IBC) tank filling stations will allow for sale of 1 tonne tanks for packaged product customers.
- The facility will be operated by approximately 52 permanent staff members including warehouse personnel.



ENVIRONMENTAL AUTHORISATION

The application processes for the proposed Caustic Soda Make-Up plant will be guided by the national environmental management principles set out in section 2 of the National Environmental Management Act (1998) (NEMA), which serve as the overall framework within which environmental management and implementation plans are formulated. The environmental authorisation is comprised of a technical and a public participation processes as illustrated below.

TECHNICAL PROCESSES

In terms of the latest amendments to the 2014 Environmental Impact Assessment (EIA) Regulations, as published on 07 April 2017, an application for Environmental Authorisation via a Scoping and Environmental Impact Reporting (S&EIR) process is required. The S&EIR process consists of two phases, a Scoping Phase and an EIA Phase. The various phases and associated steps are as follows:

- SCOPING PHASE

In summary, the objective of the scoping process is to, through a consultative process:

- Identify the relevant policies and legislation relevant to the activities.
- Motivate the need and desirability of the proposed activity.
- Identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks.
- Identify and confirm the preferred site, through a detailed site selection process.
- Identify the key issues to be addressed in the assessment phase.
- Agree on the level of assessment to be undertaken.
- Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

- IMPACT ASSESSMENT PHASE

The objective of the environmental impact assessment process is to, through a consultative process:

- Determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context.
- Describe the need and desirability of the proposed activity.
- Identify the location of the development footprint within the approved site as contemplated in the accepted scoping report.
- Determine the nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives.
- Identify the most ideal location for the activity within the development footprint of the approved site.
- Identify, assess, and rank the impacts the activity will impose on the development footprint on the approved site.
- Identify suitable measures to avoid, manage or mitigate identified impacts; and identify residual risks that need to be managed and monitored.

PUBLIC PARTICIPATION PROCESSES

The public participation process for the application for an Environmental Authorisation for the construction and operation of the proposed Caustic Soda Make-Up plant will include the following activities:

- SCOPING PHASE

Public participation activities during the scoping phase of the application process will involve the following:

- The identification of I&APs in the project area and the development of a dedicated stakeholder database.
- Announce the application processes by distributing this BID to all stakeholders on the stakeholder database and through media advertisements, posters and mail drop to neighbouring properties.
- Upfront consultation with key stakeholders representing different sectors of society, taking into account Covid-19 regulations regarding conducting or holding public meetings.
- Announce the availability of the draft Scoping Report by sending letters with the executive summary of the Report, media advertisements and placing the full Report in public places in the Ekurhuleni Metropolitan Municipal area and the company's website.
- Inform I&APs about ways in which the draft Scoping Report, taking into consideration Covid-19 regulations to combat the spread of the pandemic.
- Collate all comment and input contributed by stakeholders on the application for environmental authorisation.

- IMPACT ASSESSMENT PHASE

- During the environmental impact assessment phase, I&APs will be informed about the availability of the draft Environmental Impact Report (EIR) and the Environmental Management Programme (EMP).
- I&APs will be invited to a public meeting that will be held in the project area. The purpose of the public meeting is to review and discuss the findings of the specialist investigations.
- I&APs will be given an opportunity to raise issues of concern and mutual benefit to the project. Their comments will be incorporated into the final EIR and EMP.
- All I&APs on the database will be informed about the outcome of the application, and be advised on the appeal process, appeal period and where to submit their appeals.