

PART 4: SITE INFORMATION

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Core clause 11.2(16) states

“Site Information is information which

describes the Site and its surroundings and
is in the documents which the Contract Data states it is in.”

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

General description

There had been a vast increase in demand for electricity in South Africa, the *Employer* thus decided to increase its electricity generating capacity and built a new coal-fired power station, consisting of six super critical units with a nominal generating capacity of 4800 MW. The station is designed to operate at maximum continuous rating during the day with reduced load during the night, and with the ability to two-shift (later in the life of the station).

The Kusile Power Station is slightly larger than its neighboring existing Kendal Power Station in terms of design, dimensions, and operation. The power station structure is approximately 130 m high and approximately 700 m wide. The required stacks are approximately 220 to 250 m in height. Direct dry-cooling technology is applied, with only a small open evaporative system for critical auxiliaries that cannot be accommodated by the main cooling system. No cooling towers are constructed for the main cooling system.

Other related infrastructure includes a coal stockpile, conveyor belts and an ash dump, supporting miscellaneous structures to support the operation of the power station, and infrastructure such as transmission lines to integrate the station into the national electricity grid.

The *Employer* expects that the Kusile Power Station will provide cost effective electricity to the South African power grid while maintaining the *Employer's* environmental and social objectives.



Figure 1: Kusile Power Station Satellite View

2. Site Location

The Project Site for Kusile Power Station is situated approximately in the area between Witbank and Bronkhorstspuit, between the N4 and N12 freeways. The site is on the portions of the farms Hartbeesfontein 537-JR and Klipfontein 566-JR. The western boundary of the site lies parallel to and approximately 2500 meters west of road D686 (route R545) which is located in the Mpumalanga province of South Africa. The site is in the Upper Olifant sub-area of the Olifant Water Management Area. The site falls within the B20F quaternary catchment and the larger Wilge River catchment.

The approximate location and access routes are shown in the following figures.



Figure 2: Kusile Aerial view

Road Access

The Project Site is accessed from the existing D686 road that runs from either N12 and/or N4, which are the closest national access route roads to the Kusile Power Station. Figure 4 below shows the access roads to the Kusile Power Station Site.

The Contractor complies with the Project Manager's directions for the movement of traffic, vehicular or pedestrian, at the Project Site. The Contractor interferes as little as possible with Project Site traffic, vehicular or pedestrian, during the performance of the Works. Amongst other Site rules and regulations, these Project Site traffic provisions likewise apply to places, if any, outside the Project Site as may be specified under the Contract as forming part of the Site.

Strict access control is implemented 24 hours a day at all entrances to the Project Site. All persons and vehicles entering or exiting the Project Site may be subjected to searches and the Employer reserves the right to refuse entrance to Project Site to any person not meeting security and/or access requirements.



- The red route between the D686 and Kusile Power Station Site is designated for Contractors Buses and Taxis to access the South Access Gate Turnstiles. The routes shall be one way, between 06:00hrs - 08:00hrs when entering the Kusile Site and between 16:00hrs – 18:00hrs when exiting the Kusile Site and by the same token for all other agreed times for Contractors to arrive or leave site
- The green route is designated for Contractors Passenger Vehicles – accessing through the Murray & Roberts Gate
- The blue route is for Site Deliveries and during the peak hours as stipulated above, the delivery trucks will park at the holding area.
- The pink route is for Gx and GCD private vehicles at the North Gate
- Parking outside the Kusile Power Station Site (Yellow) remains unchanged at the North Access Gate.

2.2. Topographical Data

The surface topography consists of a gently undulating plateau of the Highveld region with gently sloped hills. The highest point of the site lies approximately at a height of 1520 meters above sea level (masl) on the eastern section of the site. The lowest point on the site is approximately at a height of 1440 meters above sea level (masl) on the western section of the site, illustrated in the Figure below.

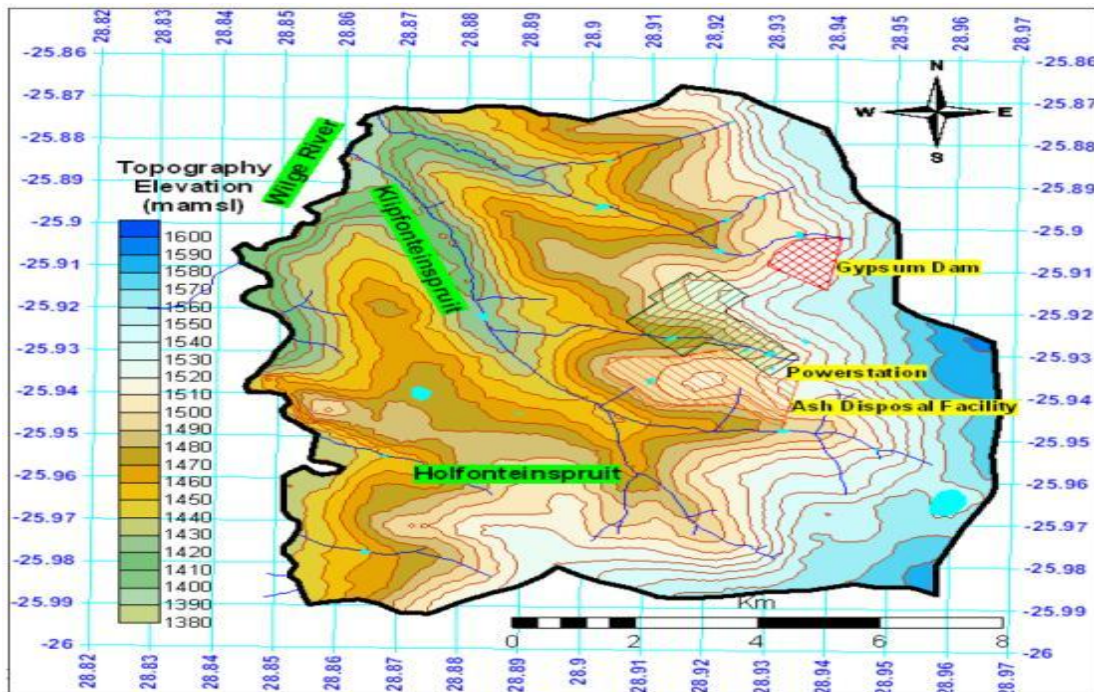


Figure 4:

Existing buildings, structures, and plant & machinery on the Site

Information, if any, on existing services and structures, including underground installations ("services and installations"), at the Project Site (and/or at other places, if any, as may be specified under the Contract as forming part of the Site) is made available solely to assist the Contractor in the execution of the Works.

The Contractor carries out the Works on the basis that services, and installations may exist that are not indicated on drawings provided.

The Contractor is responsible for locating and identifying all services and installations (such as, but not limited to, oil, water, air, and gas lines, sewers and other drains, circulating water lines, oil separators, septic tanks, telephone lines, electrical duct banks and racking or buried structures within the Project Site and/or at other places, if any, as may be specified under the Contract as forming part of the Site) where any penetration (such as, but not limited to, excavation, ploughing, trenching, driving of well points, or insertion of any tool or device below the surface) is anticipated or required or where construction operations may subject services and installations to damage, prior to the performance of such work.

All information relative to the services and installations are recorded by the Contractor and incorporated into the construction records in accordance with the requirements of the Contract.

Refer to figures below indication the proposed Fuel Filling Station location.

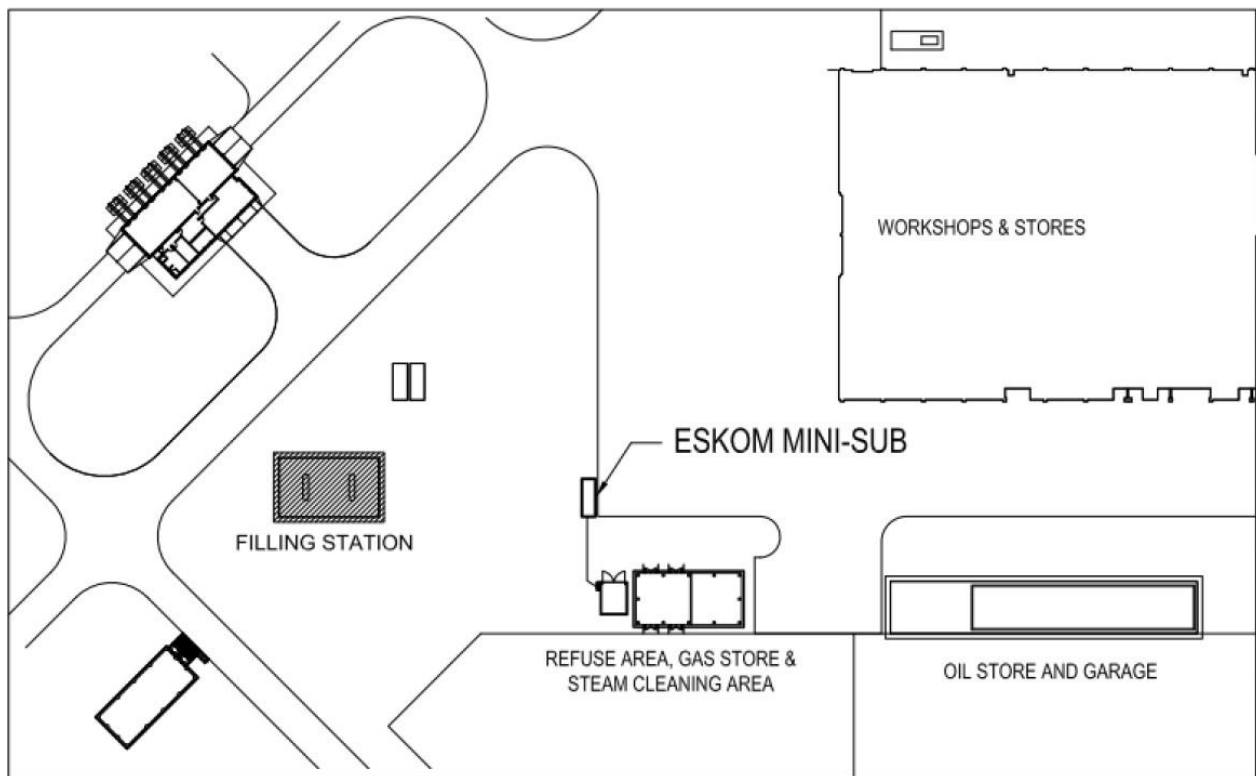


Figure 5: Fuel Station Overview

Where this document is not clear about the location of an item to be installed or work to be performed, it is the *Contractor's* responsibility to determine the correct location from the *Employer's* engineering representatives via Request for Information process. The *Contractor* shall only act upon confirmation by receipt of an Engineering Instruction via the Project Manager. Incorrectly positioned items, or incorrect work done (where Engineering Instructions were not issued) shall be moved / removed / replaced / changed / reinstalled by the *Contractor* at his cost.

For detailed information, on works and existing services that the contractor is required to interface, the contractor is referred to the following documents

- Kusile Fuel Station Technical Specification
- Employers Policies and Procedures, Kusile Power Station Project Site Regulations & General Requirements.

Subsoil information

For geotechnical information, please refer to Annexure E of the Geotechnical Report below for detailed description of the subsoil characteristics.

- T.C. Patridge, J.F. Robson, H.J. Schurink, K. Shwartz and South African Council for Geoscience, "Project Bravo: Report on Geotechnical Investigations undertaken at the Power Station Site," 2008.

The *Contractor* is deemed to have considered and familiarized himself with this report for the purpose of submitting his Tender.

Hidden services

There are numerous underground services installed, commissioned and in operation within the vicinity of the Proposed Site Location for the Fuel Filling Station, which are, but not limited to those stated in the Works Information.

The Contractor is responsible to determine the location of all underground services, uses the correct detection equipment for locating them and are clearly marked.

Should the Contractor damage any services, known and unknown, the Contractor reinstates such services at its own cost according to the Project Manager's accepted procedures and methods and to the Project Manager's satisfaction.

All incidents of damaged underground services are immediately notified to the Project Manager.

Other reports and publicly available information

- Kusile Power Station Hydrogeological Investigation