



KUSILE POWER STATION

Employer Policies and Procedures

Section 4

Project Site Facilities & Services

Part 5

Rev
2_1210

1. General

The Employer will, at his expense, arrange for, develop and maintain the various facilities and services indicated in the attached Project Site Facilities and Services Matrix at or near the Project Site, as applicable. These services and facilities are provided on the basis detailed below. The Contractor should note that Employer provided accommodation and the Project Site canteen, induction and medical facilities are dealt with under Part 6 [*Personnel, Accommodation and Industrial Relations*] of these Employer Policies and Procedures.

All Employer provided services and facilities will be used concurrently by Other Project Contractors and the Contractor shall not make unreasonable demands thereon. The Employer does not assume any risk and hereby disclaims all liability for all loss or damage to property (whether in connection with the Works or otherwise) and injury to person (including in respect of the Contractor's Personnel) suffered or incurred in connection with any Employer provided services and/or facilities (including any security or access arrangements, accommodation facilities or medical facilities). Except for claims for additional Cost (and profit where so provided) or extension to the Time for Completion as expressly provided for under the Contract, and then subject always to Sub-Clause 20.1 [*Contractor's Claims*], all such services and/or facilities shall be used by the Contractor and the Contractor's Personnel, as applicable, at the risk of the Contractor and the Contractor assumes full responsibility and liability for the use thereof by the Contractor's Personnel.

All facilities or services not specifically indicated as provided by the Employer in the attached Project Site Facilities and Services Matrix, but required for the Works (including roads, assigned lay-down yard improvements, and access needed by the Contractor in the performance of the Works), shall be provided, maintained and removed when no longer required, by the Contractor. Except as otherwise stated in the Contract, all Contractor provided facilities and services shall be to the satisfaction of the Engineer. The provision or cessation of such Contractor provided facilities or services, and the erection, installation and removal thereof and/or of related equipment, requires the Engineer's approval.

2. Areas for Contractor's Yards and Offices

The Engineer has indicated on the drawing below the area assigned to the Contractor for offices and laydown yard. The Contractor may erect temporary offices, stores and other similar structures necessary to carry out the Works on the area at the Project Site allocated to him for this purpose by the Engineer.



Note to tenderers: Tenderers must indicate use plan for yards and offices by completing and submitting the attached Ground Area Requirement Form [JA-2/2 A] with the Tender.

Any such temporary offices, stores and other similar structures shall be erected to the satisfaction of the Engineer. The Contractor shall not be permitted to occupy any other areas on the Project Site.

The Contractor's shall fence the yard area allocated to him with a 1.8m security fence to the satisfaction of the Engineer.

The Employer shall clear and roll the ground initially allocated to the Contractor to ensure normal load bearing capacity under reasonably anticipated construction conditions. The Employer shall provide roads from the terrace to the boundary of the Contractor's yard. The Contractor shall provide all roads within his area and shall, at his own cost, maintain the whole of this area including buildings, offices and other structures.

Should the Contractor require additional areas he shall request same, in the form prescribed by the Engineer, indicating the additional area/s required. The Employer reserves the right to not provide any additional areas. The Employer shall not, however, be obliged to clear or roll any additional areas allocated to the Contractor.

The Contractor shall submit to the Engineer an initial drawing and/or description indicating proposed layout and utilisation of the Contractor's allotted storage areas. The drawing and/or written description shall be kept current, shall indicate the location and description of all stored items under the responsibility of the Contractor, and shall be submitted to the Engineer as updates are made.

3. Project Site Roads and Parking

The Employer will provide and maintain construction parking and general use roads on the Project Site. A construction parking lot will be located outside the main security fence for Contractor's Personnel and visitors. Parking facilities will be limited. Contractor's Personnel and visitors failing to park as directed while using this lot may have their vehicle removed and/or be banned from future use of the lot.

A limited number of Contractor and Subcontractor non-construction vehicles will be allowed onto the Project Site. The Engineer's approval and an appropriate permit will be required as authorisation for such vehicles to be brought on to the Project Site.

4. Communication Services

The Contractor shall be responsible for his own internet connectivity.

The Employer will provide for an analogue / digital telephone line and connection point in the area assigned for Contractor's Site office. The Contractor shall provide all wiring, hardware, and equipment from this point to points of use and shall pay all service charges for his use of the telephone system. The number of lines will be determined by the Engineer, subject to availability.

The Contractor's application for telephone services shall be made in the form required by the Engineer.

There is cellular network coverage in the Project Site area. The Contractor shall make his own arrangement for cellular connectivity and shall pay all service charges for his use of the cellular communication network.

The Contractor shall make his own arrangements for radio communication at the Project Site, if required. The installation of radio communication equipment at the Project Site is subject to the approval of the Engineer.

5. Post Box

A post box for the receipt of external mail will be allocated for the Contractor's use at the Employer's Project Site Office. The Engineer and the Employer shall be entitled to use this post box for general Project Works correspondence to the Contractor.

6. Fire Fighting and Fire Protection

The Contractor shall comply with all applicable Laws and the Project fire protection requirements, as amended from time to time, in respect of fire protection requirements during construction. The Contractor alone shall be responsible for providing adequate fire protection.

Without limitation, the Contractor shall provide adequate fire protection equipment in each warehouse, office, and other temporary structures, and in each work area being occupied to the satisfaction of the Engineer. Access to sources of fire water shall be identified and kept open at all times. Suitable fire extinguishers shall be provided in enclosed areas, in areas which are not accessible to fire water, or in areas which may be exposed to fire that cannot be safely extinguished with water. Each fire extinguisher shall be of a type suitable for extinguishing fires that might occur in the area in which it is located. In areas where more than one type of fire might occur, the type of fire extinguisher required in each case shall be provided. Each extinguisher shall be securely placed and maintained in a convenient, clearly identified location for accessibility in the event of fire. The Contractor shall check and service fire extinguishers as required by the applicable Law and standards.

Additionally, where the Works include elevations, the Contractor shall provide a dry firewater standpipe at a convenient location at the Site to which a pump truck (supplied by others) could be connected to provide water at the various upper elevations of the building. Hose connections and hoses shall also be provided at these elevations.

Any operation with potential for starting a fire shall include a designated fire watch person.

Only work procedures which minimise fire hazards to the extent practicable shall be used. Combustible debris and waste materials shall be collected and removed from the Project Site each day. Fuels, solvents, and other volatile or flammable materials shall be stored away from the construction and storage areas in correctly marked, safe containers.

Unless specified in the Contract for a particular application, untreated canvas, paper, plastic, and other flammable flexible materials shall not be used on the Project Site for any purpose. Corrugated paper and other flammable packing materials will not be permitted for the storage or handling of materials in any areas where they present a fire hazard. If such flammable materials are on Plant or Materials that arrive at the Project Site, they shall be removed and replaced with an acceptable covering before the Plant or Materials are moved from the Contractor's yard into working areas.

Acceptable flexible materials for covering in the working areas shall be waterproof and flame resistant.

Formwork, scaffolding, planking, and similar materials which are combustible but which are essential to execution of the Work shall be treated for fire resistance or otherwise protected against combustion resulting from welding sparks, cutting flames, and similar fire sources. Temporary heating facilities shall not be left unattended.

7. Water

Potable and raw water for construction purposes shall be made available to the Contractor at the respective Filling Stations on the Project Site, free of charge, until the issue of the Taking-Over Certificate for the Works or for the last Section (as may be applicable). The Contractor shall have indicated his request in the Tender. Neither the Employer nor the Engineer shall, however, be bound to approve any revised requirements.

Note to tenderers: Tenderers must indicate water request by completing and submitting the attached Water Request Form [A-2/1 B] with the Tender.

The Contractor shall exercise economy and Environmental Responsibility in use of the water obtained from this source by making sure that Spillages are avoided during Water Tanker Filling and Transportation . Potable water use shall ONLY be limited to servicing Project Works related activities requiring potable quality water.

The Contractor shall provide, install, maintain, and remove when no longer required all pipes, fixtures, equipment, and metering (if necessary) from their Laydown and/or Fabrication area on site Employer supplied source to the point of Contractor's use. Pipes shall be placed at least 900 mm underground or as otherwise approved by the Engineer and on routes approved by the Engineer. Installation shall meet all applicable codes and standards and be to the satisfaction of the Engineer at all times.

8. Electricity

The Employer will supply electrical power for construction purposes at mini substations established on the Project Site until the issue of the Taking-Over Certificate for the Works or for the last Section (as may be applicable).

Electrical power to the Project Site is provided via a 22kV ring supply as well as a 22kV sub-station. The 22kV ring supply furnishes power to mini substations throughout the Project Site. Prior to furnishing power to the Contractor, a standard "Application for Power" form shall be completed and submitted to the Engineer. The request must be made at least 2 (two) weeks prior to power supply being required. Power supply shall only be provided in the following 400V, 3-phase, 4-wire ratings: 20, 40, 63, 80, 100, 225, 250 and 400 amps.

The Contractor shall have indicated his requirements in the Tender. Neither the Employer nor the Engineer shall, however, be bound to approve any revised requirements.

Note to tenderers: Tenderers must indicate construction power requested by completing and submitting the attached Electric Power Requirement Form [A-2/1 C] with the Tender, separately showing the request for at the Site, at the storage area and at the Contractor's yard area.

The Contractor shall use electricity efficiently in the course of the execution of his Works on the Project Site. There shall be no charge for electricity used for construction purposes, unless the Contractor's use thereof is unreasonable.

The Contractor shall take all necessary precautions not to damage the construction power supply during performance of the Work.

The Contractor shall provide, install, maintain, and remove when no longer required, all racking, cable, and equipment to connect power from the mini substation to the point of Contractor's use. Installation of power cables shall be subject to the following requirements:

- 8.1 the size and type of cable required by the Contractor to connect to the mini substation power supply shall be subject to the approval of the Engineer;
- 8.2 cables shall be placed at least 900mm underground and on routes approved by the Engineer;
- 8.3 installation shall meet all applicable codes and standards and shall be to the satisfaction of the Engineer.

Failure to comply with any of these requirements may result in immediate disconnection at the discretion of the Engineer.

No connection shall be made to the permanent installation of the Kusile Power Station electrical reticulation system without the prior approval of the Engineer.

The Employer shall endeavour to provide a safe and reliable power supply with interruptions kept to a minimum. No guarantees of power supply quality are, however, given and power supply interruptions of extended duration may occur without warning.

The Employer shall, where practicable, give reasonable notice of interruption of supply. Planned outages are normally arranged and advised for low activity periods such as a Sundays and limited to 8 hours. The Employer, however, reserves the right, in case of uncontrollable interruptions, emergency, or when it is not reasonably practicable to give notice, to cut off the supply without warning.

To this end the Contractor shall make arrangements, at his own expense, to guarantee continuity and quality of power for all activities where same is required and shall furthermore be considered to have allowed for all Costs and time for 12 hours of power related interruptions to the Works at the Project Site per rolling 28 day period.

9. Sanitation and Sewage

The Employer will provide and operate a sewage treatment plant and general use toilet facilities at the Project Site. Until this plant and toilet facilities are in operation and to supplement Contractor's remote work areas, the Employer will provide the necessary sanitary facilities for all contractors. This will include chemical toilets and toilets with holding tanks as needed. Routine maintenance and emptying of these facilities shall be based on the level of usage to assure sanitary and health requirements are met. The Contractor shall provide, maintain, and remove when no longer needed, all pipe, pumps, and hardware to connect the sewage treatment plant to his office facilities from a connection point designated by the Engineer. Installations shall be to the satisfaction of the Engineer.

10. Lighting

The Employer will provide and maintain general use Project Site lighting in the form of pole or mast mounted lighting fixtures. This general use lighting will comprise area lighting at the construction parking area and the Project Site entrance, at the site office areas, immediately outside the Boiler and Turbine houses and near power centres.

No local or Project Works lighting will be provided by the Employer. Accordingly, all temporary local lighting required by the Contractor, including lighting required to comply with the applicable Law, shall be provided by the Contractor at his own expense.



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Project Site Facilities & Services Attachment: Project Site Facilities & Services Matrix

Part 5

Site Facilities, Utilities and Services		Provided by		Details
Item	Contractor	Employer		
Field Office				
Field office structure	X			
Field office furniture	X			
Field office equipment	X			
Field office supplies	X			
Artisan change facilities	X			
Fabrication shops	X			
Tools				
Erection tools	X			
Special erection tools	X			
Equipment				
Construction equipment	X			
Contractor construction elevator	X			
Contractor equipment operator testing	X			
Communication				
Internet connection	X			
Radio & cell phone communication	X			
Telephone				
Construction telephone main service line		X		
Construction telephone line connection to Contractor field office	X			
Contractor's telephone equipment and system wiring	X			
Compressed Air				
Construction compressed air source	X			
Construction compressed air distribution	X			
Electrical Power				
Construction main power source and maintenance		X		
Construction power primary distribution system and maintenance		X		

Site Facilities, Utilities and Services		Provided by		Details
Item	Contractor	Employer		
Construction power Contractor's distribution system	X			
Construction power Contractor's distribution system maintenance	X			
Construction power energy usage payment		X		
Construction Lighting				
Structures interior temporary lighting and maintenance	X			
Contractor specific work area temporary lighting and maintenance	X			
General areas site lighting and maintenance		X		
Contractor areas site temporary lighting and maintenance	X			
Water - potable and nonpotable				
Construction water source		X		
Construction water Contractor's distribution and maintenance system	X			
Construction water usage payment		X		
Drinking water distribution	X			
Heat				
Temporary heating facilities/system	X			
Sanitary Facilities				
Construction primary sanitary facilities and maintenance		X		
Contractor's structures construction sanitary facilities and maintenance	X			
Access Roads				
Primary access roads and maintenance		X		
Contractor specific access roads and maintenance	X			
Primary access road dust control		X		
General Work related dust control	X			
Provide construction parking area and maintenance		X		
Storage Facilities				
Onsite lay-down space		X		
Contractor storage area maintenance	X			
Construction warehousing	X			
Tool storage facilities	X			
Climate controlled storage facilities	X			
Construction equipment fueling facilities	X			
Security				
Overall site security		X		
Contractor specific areas security	X			
Overall site security access card and finger print		X		

Site Facilities, Utilities and Services		Provided by		Details
Item	Contractor	Employer		
system and materials				
Medical Facilities				
Onsite first aid/medical services		X		
Project emergency ambulance		X		
Heliport Area		X		
Fire Protection				
Construction fire protection – fire extinguishers	X			
Construction fire protection - stand pipe	X			
Overall site fire brigade participation	X			
Construction fire equipment & vehicles		X		
Cleanup				
General refuse offsite disposal		X		
Contractor general refuse collection and onsite disposal	X			
Contractor field office cleaning service	X			
Hazardous waste disposal and clean up / rehabilitation	X			
Concrete source				
Concrete source	X			
Concrete usage payment	X			
Concrete test facilities and testing	X			
Scaffolding				
Scaffolding supply/erection	X			
Welding				
Welder testing	X			
Welder test facilities	X			
Welding/cutting consumables	X			
Railroad				
Railroad siding install & maintenance				None
Food Services				
Allowed onsite - Yes/No	No	Yes		
Canteen		X		
Canteen fee payment	X			



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Site Facilities & Services Attachment: Ground Area Usage

Part 5

Form Reference

IA-2/2 A

Year	Quarter	Office area dimensions & area	Workshop area dimensions & area	Covered storage dimensions & area	Open storage dimensions & area
20[●]	1				
	2				
	3				
	4				
20[●]	1				
	2				
	3				
	4				
20[●]	1				
	2				
	3				
	4				
20[●]	1				
	2				
	3				
	4				
20[●]	1				
	2				
	3				
	4				



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Site Facilities & Services Attachment: Water Request

Part 5

Form Reference

IA-2/1 B

Year	Quarter	Contractors Yard and Construction Water	
		Potable water consumption over 3 months [kilo litres]	Raw water consumption over 3 months [kilo litres]
20[●]	1		
	2		
	3		
	4		
20[●]	1		
	2		
	3		
	4		
20[●]	1		
	2		
	3		
	4		
20[●]	1		
	2		
	3		
	4		
20[●]	1		
	2		
	3		
	4		



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Site Facilities & Services Attachment: Electric Power Request

Part 5

Form Reference

IA-2/1 C

Year	Quarter	Site Power (Works)	Storage Power (Yard)	Office Power (Yard)
		Maximum demand over 3 months (kVA)	Maximum demand over 3 months (kVA)	Maximum demand over 3 months (kVA)
20[•]	1			
	2			
	3			
	4			
20[•]	1			
	2			
	3			
	4			
20[•]	1			
	2			
	3			
	4			
20[•]	1			
	2			
	3			
	4			
20[•]	1			
	2			
	3			
	4			