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| Part III, Appendix B6  Site and Working Conditions |



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# Introduction

This document gives a general and overall briefing on rigging conditions and behaviour linked to SAKO Premises and Site, ground sites and neighbours and provides general information in regard to which rigging and operational performances that will be organised by the Employer.

For information about location and demarcation of construction site and rigging areas within the Site please refer to appendix D4 *Site Plan*.

# General conditions

It is up to the Contractor to familiarise himself with the worksite and to obtain the necessary information that is of significance for execution of the Contract Object.

The Employer is entitled to make written additions and/or modifications to the "Site and Working Conditions". If the Employer considers additional instructions to be necessary, the Contractor and Subcontractors shall also bring these to their employees' notice.

The basic principle is that no activity concerning the project may hinder operation of the EfW Line K2 and K3 in such a way that loss of production capacity or hindrance of costumers occurs.

Usage of the Employers facilities (forklifts, workshop, warehouse, etc.) is not allowed. Exceptions can only be made for urgent matters and after approval by the Employer.

Areas that at present is reserved for construction site including areas available for rigging in terms of storage of materials, equipment, machinery, various containers, etc. is indicated in appendix D4 *Site Plans*.

## Climate and environmental condition at site

According to the climatic division based on E. Quitt, the features of the T2 area predominate in location of site, which is characterized as a warm area with a long, warm and dry summer. The transition period is short, with warm spring and autumn. Winter is short, slightly warm and very dry, with a short duration of snow cover.

The warm region T2 is characterized by the following long-term average climatic data which are of informative nature for the Contractor, who is responsible to verify it. Long term period date represents climatic data since 1961 for the area of Brno Slatina.

|  |  |  |
| --- | --- | --- |
| **Parameter** |  | **Indicated value** |
| Air temperature (°C) | Average (long-term) | 10,5 |
|  | Maximum (long-term) | 37,8 |
|  | Minimum (long-term) | -24,1 |
|  |  |  |
| Barometric pressure (hPa) | Average (long-term) | 987,49 |
|  |  |  |
| Relatively humidity (%) | Average (long-term) | 74,2 |
|  |  |  |
| Rainfall (mm) | Average (long-term) | 1,36 |
|  | Maximum (long-term) | 82,1 |
|  |  |  |
| Snow cover (mm) | Average (long-term) | 7,8 |
|  | Maximum (long-term) | 450 |
|  |  |  |
| Wind speed (m/s) | Average (long-term) | 3,48 |
|  | Maximum (long-term) | 17,3 |

Others typical climatic data for site area:

|  |  |
| --- | --- |
| Parameter | range |
| Summer days | 50 – 60 |
| Days - average temperature above 10° C | 160 – 170 |
| Days - temperature bellow 0° C | 100 – 110 |
| Days - permanent temperature bellow 0° C | 30 – 40 |
| Average temperature 0° C - January | -2 to -3 |
| Average temperature 0° C - July | 18 to 19 |
| Average temperature 0° C - April | 8 to9 |
| Average temperature 0° C - October | 7 to 9 |
| Days – average rainfall above 1 mm | 90 – 100 |
| Days with snow cover | 40 – 50 |

**Wind direction**

|  |  |
| --- | --- |
| The wind rose for the site area was taken from Czech Hydrometeorological Institute‘s data directly for the site area.  Note: The geographical indication of the wind direction indicates where the wind is blowing from (north wind blows from the north, south from the south, etc.). | Overall wind rose |

Wind rose for individual wind speed levels:

|  |  |  |
| --- | --- | --- |
| 1. Level of wind speed   (0 – 2,5 m/s) | 1. Level of wind speed   (2,5 – 7,5 m/s) | 1. Level of wind speed   (above 7,5 m/s) |
|  |  |  |

Wind rose for individual levels of stability:

|  |  |  |
| --- | --- | --- |
| 1. Stability level | 1. Stability level | 1. Stability level |
|  |  |  |
| 1. Stability level | 1. Stability level |  |
|  |  |  |

## Approval

Approval by the Employer as mentioned in this document needs to be in writing by authorized personnel and needs to be provided well in advance (at least one calendar week) before the approval is considered valid.

## Enclosure, guards – supervision

The Employer' premises are shown in appendix D *Drawings.*

The Employer’s security service is only of a preventive nature, and the Contractor is responsible himself for locking up and securing all his equipment and work and preventing fire risks. The security service will not be responsible for looking after the Contractor’s equipment, material etc.

The Employer may install cameras on the construction site which will transfer information at all time to the Employer.

The Contractor shall install necessary fencing, gate, access control and guards at the construction site marked in appendix D4 *Site Plans*.

## Access control

The Contractor shall use access to the construction site as marked in appendix D4 *Site Plans.*

The Contractor shall install an access control system for control of access to the construction site.

All persons, vehicles and machinery / equipment is required to obtain permission from the Contractor to enter the site. Without proper clearance access shall be denied. A logistic plan for all deliveries (vehicles, machinery, equipment, etc.) shall be set up by the Contractor for approval by the Employer.

It is the Contractor’s obligation to ensure all personnel:

* Have undertaken a HSE course;
* Have a valid work and residence permit;
* Have reported to the Czech authorities for tax and foreign affairs.

The Contractor undertakes to conform to such access regulations and to ensure that Subcontractors also comply with these regulations. In general, it is emphasized that the Contractor is responsible for ensuring that all his own personnel and Subcontractor’s personnel observe the rules of behaviour stipulated in this document, both inside and outside the construction site perimeter.

Information and registrations on access control shall be stored for the entire construction period and the Employer shall at all times have full access to the documentation and data.

The Employer has the authority to search people (including alcohol and drug control) entering and leaving the site and to inspect vehicles and means of transport. The Contractor and Subcontractors and their employees are required to cooperate fully with such inspections.

In the event of repeated (more than once) or gross breaches of the rules of behaviour (consumption of alcohol or drugs, theft, etc.), the Contractor shall ensure that the personnel involved are removed from the construction site. The Employer has an equivalent, unilateral right to remove personnel of the Contractor.

## Noise, dust, light, and vibration

The Contractor himself must obtain dispensation from the Authorities in the event of noisy work.

Noise, dust, light and vibrations must not entail any unnecessary impact on the local area.

The Contractor is responsible for preparing Environmental and HSE Plans for the project which shall be approval be the Authorities and forwarded as copy to Employer in due course.

## Power supply

Use of electricity for erection purposes is paid for by the Contractor.

The Contractor shall establish necessary main distribution centres and metering for the Contractor and sub-contractors on site providing power feed with low-voltage sockets. Before the establishment, these distribution centres have to be approved by the Employer. The Contractor shall furthermore establish necessary electrical supply for his Works based on connection to the main distribution centres.

Feeding connection point is defined as:

* Existing switchgear RH 1 section 4 (refer to the *SAKOBR2-4245-006-Part III-E5 Single Line Diagram for Employer’s Existing Plant*) where 6 fused outputs are available (max 400 A)
* Existing switchgear RH 1 section 3 (refer to the *SAKOBR2-4245-006-Part III-E5 Single Line Diagram for Employer’s Existing Plant*)

All installation, operation, and maintenance costs of the Contractors electrical connections are the responsibility of the Contractor.

Power interruptions or the consequences of unintentional use or similar do not give the Contractor a right to financial compensation.

## Water, drainage, etc

Use of water for erection purposes is paid for by the Contractor.

The Contractor shall arrange for the necessary water supply and metering. The Employer will indicate connection points for water and drainage.

In general, the Contractor shall carry out the work so that run-off and drainage from the construction site is ensured. Consequently, the Contract Object includes all measures for pumping/draining the construction site, measures for handling surface water, and connections to surface water pipes. Methods of handling surface water to reduce possible emissions of particles and oil to the public drainage network shall be approved by the Employer and the Authorities.

Connection points are stated in appendix E1 *External utilities specification.*

## Heating

The Contractor is responsible for establishing of all necessary heating on the construction site. Heating is paid by the Contractor.

## Snow clearing – maintenance of roads and hard standings

The Contractor shall arrange snow clearing, gritting, cleaning and maintenance of the roads within the construction site and rigging areas if necessary as shown in appendix D4 *Site Plan*.

The Employer will arrange snow clearing, gritting, cleaning and maintenance of access ways to the Employers areas relating to the construction site and rigging areas.

Gritting, snow clearing and maintenance shall be carried out so that it does not cause any hindrance to others working on the construction site and rigging areas or other of the Employers areas.

## Tidiness and order on the construction site

All material residues, work equipment, and waste materials that could cause damage or danger shall be properly secured or removed immediately.

## Waste handling

All waste shall be sorted at source. Since the construction is actually at a waste disposal site, it will be possible for the Contractor to dispose of combustible waste in the bunkers at site by agreement with the Employer.

A plan for all waste removal shall be set up by the Contractor for approval by the Employer.

## Working hours

In general, working hours shall be in accordance to the Contract. In all other hours outside the Standard working hours, the Work on the Site must only take place with the Employers approval.

## Rolling equipment

Due to the limited space, rolling equipment (push dozers, forklifts, servicing platforms, trucks, etc.) will only be allowed on the location for the duration of the activities for which they are needed. This requires that the equipment has to be delivered just in time. As soon as the activities have ended, the equipment has to leave the site. The Contractor is responsible for the on-time arrival and departure of this equipment, so that the time on site of this equipment will be at a minimum.

Per activity, the amount, type, specific measurements and all other specifics of the rolling equip­ment has to be defined. A schedule comprising all equipment on the construction site shall be made by the Contractor for approval by the Employer.

## Building cranes

The number of cranes and locations for them is to be given by the Contractor. The Contractor and his sub-contractors on site undertake to cooperate on location and use of tower and mobile cranes so that they do not create situations that could be dangerous or entail irrational operation.

The Contractor shall ensure that the locations for cranes, as well as the planning for the arrival and total time on the site of these cranes are planned with due considering of safety on site.

Location and operation of cranes resulting in interference or limitations on areas outside the construction site shall be approved by the Employer.

## Scaffolding

The Contractor and his sub-contractors shall coordinate the use of scaffolding constructors with the aim to limit the number of scaffolding constructors to one scaffolding constructor on site. Extra costs cannot be charged to the Employer due to this coordination obligation.

All scaffolding constructors shall be approved by the Employer.

## Traffic

Unless special instructions have been issued with regards to traffic on the construction Site, the normal road traffic laws shall apply on site.

The speed limit on the construction site is 15 km/h.

To allow unhindered emergency access to work sites, the roads to and on the construc­tion site shall be kept free of obstacles to the extent that the minimum width of passage shall be 3.50 metres and the minimum headroom 4.00 metres. If, owing to special circumstances, the clearances stated cannot be adhered to, agreement shall be reached with the Employer well in advan­ce before such occurrence as to what traffic measures should be taken to ensure the acces­sibility of work sites (for emergency access).

Construction and erection work shall be carried out in a manner which does not obstruct the regu­lar traffic on the Employer’s EfW Line K2 and K3. If, owing to special circumstances, the regular traffic will be hinde­red, agreement shall be reached with the Employer well in advance before such occurrence as to what traffic measures should be taken to ensure the accessibility of the site (for the regular traffic on the site).

The roads to and on the construction site shall be kept clean and in good condition. Damaged or fouled roads shall be repaired or cleaned by or at the expense of the Contractor.

## Exceptional loads

Consignments which are regarded as "exceptional loads" shall be noti­fied to the Employer and the relevant Authorities by the Contractor for authorisation.

For the approval of "exceptional loads", a loading plan shall be submitted showing the loads impo­sed on the roads and structures by the freight vehicles and the hoisting or lifting applian­ces. This plan has to be approved by the Employer.

In addition, in the case of an "exceptional load" the Contractor shall:

* inform himself of the condition and the maximum loading of the construction site roads and of the required safe distances from the on-site installations in consultation with the Employer;

and

* take all necessary safety precautions; in particular, he shall pay attention to safe distan­ces in relation to vertical and horizontal limits.

## Construction site signs

Construction site signs shall be set up by the Contractor in consultation with the Employer.

## Internet, telephone, fax, copying, and other data lines

Internet, telephone, fax, copy and other data lines are included in the Contract Object.

Usage of mobile communication appliances other than mobile phones (walkie talkie, etc.) shall be approved by the Employer.

# Access conditions

## Access conditions

For all personnel and transportation related to the construction the Contractor shall proceed as marked in appendix D4 *Site Plans*. The main gate will only be used for the deliveries of waste, supplies and other items concerning the EfW Line K2 and K3 operation and for a limited amount of the delivery of materials and equipment concerning the project process based on consultation and approval of Employer.

Access to the site by car is not allowed. A dedicated parking area shall be used for parking after approval by Employer.

The Contractor must establish internal, intermediate and permanent roads inside the construction site and rigging areas, to the minimal extent as shown in appendix D4 *Site Plan*.

The Contractor shall operate and maintains all the roads and access ways to the Site.

## Neighbouring conditions

The construction area is located close to public housing are in approximately 150 meters distance. All the necessary pre-cautions during the Works to eliminate external disturbances shall be considered and secured by the Contractor.

# Rigging areas

## General

The Contractor shall carry out his tasks within the restrictions of Czech legislation regarding attention to neighbours, and in accordance with general consideration for neighbours. The Contractor shall take the necessary measures to ensure that neighbours, the general public and the surrounding areas are not exposed to hazards and inconvenience due to operations in the form of noise, vibration, dust, traffic, spillages on the local road network, changes in the groundwater table etc.

It is emphasised that the work will be carried out close to the Employer’s EfW Line K2 and K3 facility in full operation throughout the construction period. The Contractor must therefore take special account of this in his work and general behaviour.

The rigging and storage areas will be allocated by the Employer according to Appendix D4 *Site Plans*. The Contractor must establish fences, gates etc. similar to the requirements for the construction site.

The rigging area is limited, and there will not be space for storing large amounts of material and equipment on the construction site. The Contractor will only be allowed to store a small stock of materials which are needed on day to day basis in conformity with the progress of the work.

The Contractor shall properly store the delivered parts on the storage area provided for this purpose. Every stored part shall be provided with a label bearing the name of the Contractor or the Subcontractor, the type of part and the order number so that its origin can be established at all times.

Control of the storage area will be done by Contractor in coordination with the Employer. This means that the Employer will monitor the supplies and take action if supplies are longer than agreed in the storage areas. Parts whose origin cannot be established shall be regarded as waste and be removed from the site at the direction of the Employer. Any costs of such actions will be at the Contractors expense.

The Contractor in coordination with the Employer will coordinate all horizontal transport of material to the location and within the location. The Contractor shall make a planning per day (one week in advance) of all the materials they need for that day. This planning has to be approved by the Employer. The Contractor is responsible for the on-time delivery of these materials.

When there is more than one Subcontractor on the construction site, the Contractor shall, after consultation with the Subcontractors, determine a general allocation of rigging area that all Subcontractors will be obliged to keep to.

Because several subcontractors will be working within the same areas, it will probably be the case that several Subcontractors would have the right to use the same rigging areas at the same time. This means that each individual Subcontractor must undertake to show consideration, flexibility and cooperation towards the other Subcontractors to achieve the best possible allocation and utilisation of the rigging areas for the construction Site as a whole.

If Subcontractors cannot agree between themselves on an allocation of rigging areas within the individual areas, the Contractor shall, after consultation with the Subcontractors involved, determine the allocation that he deems to be appropriate.

## Rigging and operation

Please refer to Part II.i *Planning and permitting* and appendix A9 *Technical Specifications for Building* for separate descriptions of the buildings at the EfW Line K2 and K3, and the descriptions of the various sub-projects that shall be constructed or rebuilt.

Regular operational traffic within SAKO Premises shall be possible throughout the whole building period.

The Contractor shall work out phase plans for rigging throughout the implementation of Contract Object.

## Site office facilities and Welfare Facilities

Areas allocated for site offices and welfare facilities will be allocated according to appendix D4 *Site Plan*. Besides these areas, it is possible for Contractor to utilise existing administration space in property owned by Employer in neighbouring plot at address Jedovnická 4. Particular condition will be negotiated within the Contract.

The Contractor shall include all site offices and welfare facilities necessary for the Contractors and implementation the Contract Object. The Contractor must furthermore provide separate space in coordination with Employer for office and welfare facilities for Employer’s site management staff. Furthermore, the Contractor shall provide meeting room for the site construction meetings.

The Contractor must establish fences, gates etc. similar to the requirements for the construction Site.

The Contractor shall make the arrangement, connection and removal of all necessary office, staff and sanitary facilities. Furthermore, the Contractor shall arrange the connection of water and power to these sheds.

The Contractor shall perform the maintenance and cleaning of the office, staff and sanitary facilities. The Contractor shall make the arrangements of workshops and storage sheds at site. Due to limited space the size and location shall be agreed with Employer.

After normal working hours, the Site office facilities and Welfare Facilities may only be used as per agreement with the Employers site management.

The Site office facilities and Welfare Facilities may not be used for overnight accommodation.