

Employer  
**SAKO BRNO A.S.**

Project  
**Modernization of WtE Plant SAKO Brno**

Date  
**July 2024**

# **PART III, APPENDIX B2**

## **REQUIREMENTS FOR HEALTH, SAFETY, AND ENVIRONMENT**



## PART III, APPENDIX B2 REQUIREMENTS FOR HEALTH, SAFETY, AND ENVIRONMENT

Project name **Modernization of WtE Plant SAKO Brno**  
Version **1**  
Date **2024-07-02**  
Documentation **Procurement documentation – Part III – Employer's Requirements**

Ramboll  
Hannemanns Allé 53  
DK-2300 Copenhagen S  
Denmark

T +45 5161 1000  
F +45 5161 1001  
[www.ramboll.com/energy](http://www.ramboll.com/energy)

## CONTENTS

<b>1.</b>	<b>General</b>	<b>2</b>
<b>2.</b>	<b>Project HSE goals</b>	<b>3</b>
2.1	Project Vision	3
2.2	Goals and Expectations	3
2.3	Health and Safety Supervisor	4
<b>3.</b>	<b>HSE regulations</b>	<b>5</b>
3.1	Health & Safety Documentation	5
<b>4.</b>	<b>HSE during design</b>	<b>7</b>
4.1	Technology and process	7
4.2	Permissions/Authorisations	7
4.3	End User Considerations	7
4.4	Design Progress Meetings	7
4.5	Hazard Elimination	8
<b>5.</b>	<b>HSE during construction, erection and commissioning</b>	<b>9</b>
5.1	Health & Safety Policy and organisation	9
5.2	Arrangements	9
5.3	Competent advice	9
5.4	Training and information	10
5.5	Individual qualifications and experience	10
5.6	Workforce involvement	10
5.7	Sub-contracting	10
5.8	Risk assessment	11
5.9	Co-operation and co-ordination	11
5.10	Initiatives	11
5.11	Records	11
5.12	Management of issues associated with the coronavirus	11
<b>6.</b>	<b>Reporting and meetings</b>	<b>13</b>
6.1	Health & Safety Reporting	13
6.2	Health & Safety Performance	13
6.3	Accident Reporting	13
6.4	Meetings	14

## SUPPLEMENTS

Annex 1 Valid rules of HSE and fire protection of the Employer

## 1. GENERAL

The principles and obligations relevant to Health, Safety and Environment (HSE) are set out in the body of the Contract. This Appendix describes the responsibilities for the management of health & safety under this Contract and the processes by which these responsibilities shall be discharged.

The Contractor shall at all times in performing the Contract Object comply with the requirements of all applicable HSE legislation. The Contractor shall consider all aspects of HSE risk management throughout the design and construction phases of the performing of Contract Object, accounting for future occupation, operation, maintenance and future demolition.

The Employer will review the Contractor's HSE arrangements throughout the Works. To this end the Employer have the right to request information relevant to HSE during the design, manufacturing, construction and commissioning phases of the Contract Object. In order for the Employer to check whether the Health and Safety is adequately managed by the Contractor, it will perform inspections of the place of implementation and working conditions, audits and documented inspections, at any time within a reasonable time.

The Contractor shall follow the valid rules of the Employer concerning HSE and fire protection applied in the SAKO Premises. (rules attached as annex 1 to this appendix)

## 2. PROJECT HSE GOALS

### 2.1 Project Vision

The project is an ambitious and challenging scheme and a primary measure of its success is maintaining the health, safety, wellbeing and welfare of everyone involved, at every stage. The vision is that:

*"SAKO Brno is leading new standards of excellence in health & safety in design and construction, where everyone can take pride in a safe working environment, an absence of incidents and a leading safety culture. This is a result of everyone treating health & safety as a number one priority, ingrained in everything we do"*

The Employer project team is delivering this vision through:

- Leadership, in designing and living the SAKO Brno safety culture;
- Maintenance of an open, collaborative and continually improving environment;
- Active participation of all stakeholders across all levels of the project organisation;
- Integration of health & safety in everything we do.

### 2.2 Goals and Expectations

The Employer asks for health & safety to be the highest priority on Site for the Contractor and any contractor related party who are required to participate actively to achieve this objective.

The Employer wishes to ensure that the Contract Object carried out by the Contractor shall minimise risks to the health or safety of any person affected by the Works, and that suitable facilities are provided by the Contractor in respect of any person carrying out construction work.

The Contractor shall define within its project management plan its safety goals including:

- Delivery of a Line that is safe to construct, operate, maintain and demolish;
- Ensuring the safety of everyone involved, with the aim of zero accidents, incidents, lost time injuries and damage;
- Reporting and learning from all near misses to prevent re-occurrence; and
- Demonstration of industry leading best practice in health & safety risk management.

To achieve these goals, the Contractor shall:

- Demonstrate health & safety is the top priority for the Works;
- Comply with requirements of the Employers Requirements and any applicable Czech and EU Legislation;
- Apply inherently safe design practices (A design that avoids hazards instead of controlling them), eliminating (where practicable) hazards and risk associated with the construction, commissioning, future operation, maintenance and demolition phases while reducing the burden of administrative controls required;
- Ensure all necessary records are kept including a design risk register to show how risks have been eliminated or are to be managed;
- Conduct hazard identification and hazard and operability studies (HAZOP) at key stages through design and access, lifting and maintenance workshop and buildability review of all packages prior to construction;
- Work in collaboration with all designers and supply chain to ensure design and construction methods are in line with good industry practice;

- Develop the Contract Object in a sequence which is accommodating and minimises the impact on existing EfW Line K2 and K3 operations and the neighbouring area;
- Actively encourage the use of off-site component manufacture, assembled on site;
- Provide suitable welfare facilities for those carrying out construction work.; and
- Introduce wellbeing initiatives that support a fitter, healthier, happier workforce, that can impact positively on productivity and prosperity.

### **2.3 Health and Safety Supervisor**

The Employers designated HSE Supervisor shall monitor the management of health & safety by the Contractor and his capacity as principal designer and principal contractor for the implementation of the Contract Object.

### 3. HSE REGULATIONS

The information in this Appendix is provided for background information only and does not supersede or replace the obligations that are imposed on the relevant duty holders under EU Directive 92/57/EHS. This Directive lays down minimum safety & health requirements for temporary or mobile construction sites i.e. any construction site. The Directive's intent is to avoid or mitigate risks by establishing a chain of responsibility linking all the parties involved.

The Contractor shall be entirely responsible for the safety of any design which forms part of the Contract Object and for the adequacy, sufficiency, suitability and safety of all activities on the construction Site including methods of construction, commissioning, testing, operation and maintenance.

The HSE regulations aim to improve health & safety in construction, for the whole life cycle of a facility, and to ensure:

- appropriate planning of construction work so the risks involved are managed from start to finish;
- the right people are used for the work at the right time;
- appropriate cooperation and coordination occurs between involved parties;
- the relevant information on risks and how they are managed is available and distributed to the necessary parties; and
- workers are consulted and engaged with about the risks and how they are being managed.

#### 3.1 Health & Safety Documentation

The Contract documents include references to a health & safety plan for the Contract Object. The Contractor acknowledges that this plan comprises a number of health & safety documents required as defined within the HSE regulations, for application at various stages of the Contract Object and at completion.

##### Pre-Construction Information

As from the Effective Date, the Contractor shall develop and maintain the pre-construction information pack in accordance with its duties according to the HSE requirements.

##### Design Risk Management Register (DRMR)

The Contractor shall develop and maintain the DRMR for the duration of the Works, in a format to be agreed with the Employer.

- The DRMR is a record of significant hazards and risks identified in the design to date and sets out the agreed mitigating action to remove or reduce each risk so far as reasonably practicable together with any residual risks.
- Only significant hazards and risks shall be recorded on the DRMR, defined by the HSE as those which will require the Contractor to devote extra resources to their management. Hazards such as cement and trailing cables, which every contractor manages every day, do not fall within the category of significant risks

The Contractor shall ensure that all parties that are able to influence design decisions are involved with reviewing the DRMR periodically.

- The DRMR shall record the risk identified, the mitigation of the risk and the reason for deciding on any mitigation

- On completion of the Contract Object, the residual risks remaining in the DRMR will form part of the Line Documentation and will be maintained thereafter by the Employer.

#### Construction Phase Plan (CPP)

The Contractor shall submit to the Employer a CPP specifically for the conducting of the Construction of the Contract Object. The CPP shall be submitted by the Contractor to the Employer for acceptance in accordance with the content requirements defined within the HSE Regulations.

The CPP shall set out the health & safety arrangements and Site rules taking account, where necessary, of the industrial and other construction activities taking place on or near the construction Site.

Throughout the Works the Contractor must ensure that the CPP is appropriately reviewed, updated and revised from time to time so that it continues to be sufficient to ensure that construction work is carried out, so far as is reasonably practicable, without risks to health or safety.

#### Health & Safety File

The Contractor shall agree with the Employer the layout and format, arrangements for the collecting and gathering of information and the storage of information. The Contractor shall provide the Employer with a copy of the HSE file relating to the Contract Object in accordance with the HSE Regulations and good industry practice. This shall be produced in draft form no later than 3 months prior to the planned Preliminary Takeover date of Contract Object. The final version of the HSE file shall be produced and a copy provided to the Employer within 3 months of the issue of the Preliminary Takeover certificate.

- The HSE file is a permanent record of the installed Contract Object, compiled by the Contractor to comply with the HSE regulations.
- The HSE file is designed to enable the end user to manage, use, maintain and repair the structure, knowing the restrictions imposed by the Contract Object. Where the end user wishes to carry out alterations to the Works then the Health & Safety File will provide assistance.

The Contractor shall ensure that it provides the Employer with all relevant information for the Health & Safety File until the end of the Defects Liability Period. Any updates to information for the Health & Safety File shall be communicated to the Employer as soon as reasonably practicable.

The Contractor shall ensure and certify, that, prior to the Preliminary Takeover Date, the Employer operation personnel can operate and maintain the Plant and Work infrastructure, competently, safely, securely and efficiently by in compliance with , inter alia, the Operations and Maintenance Manual (O&M manual) and applicable rules, regulations and as provided for elsewhere in the Contract.



## 4. HSE DURING DESIGN

The Contractor shall consider all aspects of health & safety in the design, both in terms of the future operation and maintenance of the Line and in planning of the construction, erection, commissioning, use, maintenance, decommissioning, and end of life, to ensure that it can be carried out in a safe manner and fulfil any relevant Legal regulation.

All local and national Legal regulation regarding health and safety during design shall be complied with.

The Contractor shall appoint one HSE coordinator who is responsible for coordinating the aspect of HSE during the design phase.

The Contractor shall in due time present and discuss with the Employer how the HSE aspects have been taken care of during the engineering phase, e.g. how the design has considered safety during maintenance and operation.

### 4.1 Technology and process

The Contractor shall conduct a full and comprehensive HAZOP study and access, lifting and maintenance study for the proposed Line to assist with the full operating design. To this end, design representatives from the Contractor shall be made available to attend and input into the HAZOP study. The Contractor shall appoint an independent chairman from a third-party consultant to conduct HAZOP study.

The Employer shall be invited to participate in HAZOP and access, lifting and maintenance studies relating to the Line. Any costs of design modifications and their implementation in the Line resulting from such studies shall form part of the Contract Object if it is in the opinion of the HAZOP chairman, such modifications are essential to enable the Line to operate correctly or to eliminate hazards.

### 4.2 Permissions/Authorisations

The Contractor shall ensure that any required permissions/authorisations are in place from the appropriate competent Authorities prior to handover of the facility to the Employer. These shall include, but not be limited to gas and power utility, environment agency, building inspectors and fire and rescue services requirements.

### 4.3 End User Considerations

The Contractor shall ensure arrangements are in place throughout the design phase of the Contract Object to coordinate design development with active participation and feedback from the Employer. The Contractor shall, where appropriate, consider feedback received and where instructed to do so alter the design to ensure the Contract Object meet the needs of the Employer who shall be able to operate and maintain all installed systems without undue risk to health & safety.

### 4.4 Design Progress Meetings

The Employer's HSE Supervisor and the Contractor HSE coordinator shall jointly organise meetings to review the Contractor's designs from a health & safety perspective. The Contractor shall attend

these meetings and provide suitably qualified persons to explain and discuss the Contractor's approach to meet the HSE regulations requirements and any other requirements arising during the design and including but not limited to design for manufacture of components forming part of the Contract Object.

The Contractor shall provide such supporting information as required by the Employer to prepare for and participate in the meetings. The Contractor shall confirm and record its actions and steps to accommodate the outputs from the health & safety design review meetings.

#### **4.5 Hazard Elimination**

The Contractor shall maintain records describing the particular systems it employs for the identification of hazards and their safe elimination throughout the period when design work is performed. This shall include, but not be limited to risk register (DRMR) and HAZOP and shall include the review of work performed by designers at key stages of design. The outputs of such studies and reviews shall be included in the Health and Safety file. The Employer shall be invited to participate in such reviews and studies.

## 5. HSE DURING CONSTRUCTION, ERECTION AND COMMISSIONING

The Contractor shall implement and maintain for the duration of the Works an effective health & safety management system aligned to OHSAS 18001 or ISO 45001 or equivalent.

The Contractor shall be responsible for the safety of its own operations and those of any Subcontractor.

The Contractor shall appoint one HSE coordinator for the Construction and commissioning, who shall be responsible for and coordinate and follow-up on all aspects of HSE during Construction and commissioning.

The Contractor shall be responsible for HSE coordination on the construction Site and rigging areas during the execution of the Contract Object. The Contractor's HSE coordinator shall coordinate the Contractor's activities with the overall HSE supervisor of the Employer. The Contractor shall follow the instructions of the Employer's HSE supervisor for works related to HSE.

### 5.1 Health & Safety Policy and organisation

The Contractor shall be able to demonstrate that the Contractor's organisation has implemented a health & safety policy suitable to the nature of the business, and that the policy clearly defines the roles and responsibilities at all levels of management within the organisation.

### 5.2 Arrangements

The Contractor shall clearly define the arrangements for health & safety management within its organisation, which shall be relevant to the nature and scale of the Works under this Contract.

The Contractor shall ensure that construction activities do not interfere with the Employers activities, and that Employers activities do not impact on the Contractor works. This will require close cooperation and liaison between both parties, particularly where the Contractor is required to, or wishes to, undertake activities within the Employers operating site.

When entering the Contractor's construction Site area the Employers staff shall comply with the Contractor's construction Site safety requirements including but not limited to a requirement to be inducted.

### 5.3 Competent advice

The Contractor shall have access to competent health & safety advice. The Contractor shall identify to the Employer the use of any third parties used for consultation, training, and/or informative, purposes.

Where required to do so the Contractor shall be able to demonstrate the experience and expertise of all third parties used.

## 5.4 Training and information

The Contractor's organisation shall have a clear commitment to the training and continued professional development of the organisation's staff.

The Contractor shall upon request demonstrate the training and information systems used to ensure that all employees understand their health & safety duties and how they are to be discharged under this Contract. The Contractor shall identify the routine and frequency of health & safety training and shall, where requested provide records to demonstrate that the systems are being maintained. The language of the Contract shall be primarily Czech and secondary English therefore it is vital that all parties involved in the Contract, and particularly those employed on construction Site, are able to understand health & safety rules, signage, instructions and are able to engage with the health & safety practices required by the Contract. The Contractor shall upon request demonstrate how it communicates effectively with the whole of its workforce including the workforce of any Subcontractors or suppliers, and those whose first language is not Czech or English and those who are unable to fully understand or respond to written health & safety instructions or guidance. Furthermore, the Contractor shall demonstrate how it verifies that health & safety rules have been understood and are being adhered to.

The Contractor shall ensure that every site worker and visitor receive a suitable site induction, proportionate to the nature of their work, highlighting any risks and control measures they need to know about. As the Employer still maintains full operation on site the Contractors induction shall include a requirement that any access to or through the Employers operational areas can only be carried out after having received the Employers induction. Any Contractor activities carried out within the Employers operational area will require agreement by the Employer.

## 5.5 Individual qualifications and experience

The Contractor's employees shall have the appropriate qualifications and experience for their assigned tasks. The Contractor shall demonstrate how appropriate qualifications and experience will be confirmed and recorded for all tasks undertaken on the construction Site.

The Contractor shall have in place a mechanism for monitoring the performance of its health & safety system. The Contractor shall notify the Employer of the processes by which the Contractor shall monitor its health & safety management system and the internal and third party frequency with which its health & safety system will be audited and reviewed.

## 5.6 Workforce involvement

The Contractor shall have an established means of engaging its workforce in health & safety matters. The means of engagement will include but not be limited to near miss reporting, tool box talks, safety briefings and lessons learnt. The Contractor will demonstrate the means of engagement used to the Employer.

## 5.7 Sub-contracting

The Contractor shall have in place management procedures to assess health & safety standards when selecting its Sub-contractors and suppliers. The Contractor shall ensure that its Sub-contractors adopt similar procedures and standards in turn when selecting their sub-contractors. The Contractor shall have arrangements for the monitoring of the health & safety performance of all of its appointed Subcontractors.

## 5.8 Risk assessment

The Contractor shall have and shall maintain procedures for carrying out and recording suitable and sufficient risk assessments, suitable and sufficient risk mitigation and the implementation, inspection monitoring and auditing of safe working systems and methods. These procedures shall apply to the Contractor's staff, sub-contractors, suppliers, advisers carry out works within the construction Site.

## 5.9 Co-operation and co-ordination

The Contractor shall provide upon request evidence of the particular systems implemented for the co-operation and co-ordination between the Contractor and, inter alia, all other parties to the Contract, Subcontractors and the Employer.

This shall include evidence, meeting notes, risk assessments, and successful arrangements employed on similar projects that demonstrate successful joint working and risk reduction.

## 5.10 Initiatives

For the whole duration of the Works, the Contractor shall implement initiatives that deliver improvement of health & safety, such as campaigns, rewards for positive near miss reporting etc.

## 5.11 Records

The Contractor shall ensure that it keeps thorough and complete records relating to health & safety and upon request provide copies to the Employer.

## 5.12 Management of issues associated with the coronavirus

The Contractor shall ensure the Contract Object is undertaken in accordance with its obligations under Contract and the following arrangements:

- Keeping up to date and complying with all government/authority, health & safety, Employer specific and industry guidance and requirements
- Identifying work activities that cannot be undertaken or must be stopped in compliance with government/authority guidelines (e.g. on social distancing) in sufficient advance and advising the Employer accordingly
- Safely closing down and isolating any activities / work areas which cannot continue in line with government/authority guidance
- Planning of work activities to ensure compliance with guidance on social distancing including arrangements for access to working areas, segregation of working areas, barriers and signage, taking of breaks etc.
- Giving special attention to areas where social distancing is more difficult and that workers need to use regularly (e.g. welfare facilities, toilets, drying rooms, canteen etc), implementing special arrangements and providing additional guidance and procedures as necessary.

- Cleaning including of tools, plant & equipment between users, shared welfare facilities, access routes etc.
- Ensuring all Site staff are fully aware of, and kept updated with, latest government/authority guidance and rules specific to their Site activities.
- Policing Site rules and compliance with government/authority guidance.
- Minimising risk to third parties (e.g. members of the public).
- Minimising risk to visitors and drivers.
- Dealing with any staff who become ill whilst on Site.

All arrangements must be recorded in the Construction Phase Plan and their suitability and sufficiency must be reviewed on a regular basis.

It is required that the Contractor keeps records of all actions taken, attendance at briefings, cleaning undertaken etc.

## 6. REPORTING AND MEETINGS

### 6.1 Health & Safety Reporting

The Contractor shall provide the Employer with regular reporting on its health & safety performance, which shall comprise of not less than:

- Daily briefing to the Employers HSE supervisor;
- Weekly report to the Employer;
- Monthly report in the Monthly progress report to the Employer; and
- Record of Construction signage indicating health & safety statistics presented including number of days since last lost time accident/incident.

The level of reporting detail in each case shall be sufficient so that each Party can fulfil their respective duties under Legal regulations. The reports shall also cover standards employed on the construction Site, conditions and capacity of welfare facilities, health risk assessments, injury / illness monitoring and updates of them.

### 6.2 Health & Safety Performance

The Contractor shall provide the Employer with monthly project health & safety performance metrics. These performance metrics will include but will not be limited to:

- Incidents reported in period by source, type and period;
- Total incidents to date reported by source, type, and period;
- Lost time incidents by source, type and period (Lost Time, is the employee's lost time);
- First Aid (No Lost Time) health & safety incidents by source, type and period;
- Ill health and sickness;
- Incident investigation reports including root cause analysis;
- Director/management/Employers inspections, noting any comments;
- Number of audits and inspections, noting any key findings;
- Toolbox talks and workforce safety messaging in period;
- Safety meeting and forums conducted;
- Performance and behaviour monitoring;
- Checking of procedures, permits etc;
- Stop work (Authorities/locally);
- Number of safe acts and positive suggestions provided by workforce; and
- Trends analysis.

Health & safety reporting and meetings shall include key findings from agreed metrics, lessons learnt, corrective actions and agreed improvement opportunities with actions.

### 6.3 Accident Reporting

The Contractor shall demonstrate the systems in place for the reporting of all health & safety accidents, incidents and near misses. The Contractor shall make the Employer aware of any reportable occurrences during the conducting of Contract Object as soon as reasonably possible and provide a summary report within 24 hours of the incident.

The Contractor shall provide a full report of the incident including lessons learnt as soon as reasonably possible and within five (5) days of the incident.

Should further investigation be required the report may be updated.

## **6.4 Meetings**

The Contractor shall conduct daily and weekly site safety meetings involving all contractors engaged on the construction Site, to review the previous week's activities and discuss the forthcoming activities to ensure health & safety performance of the highest level is maintained at all times on the construction Site. These meetings may be attended by the Employer.

The Contractor shall attend any meeting related to health & safety where requested to do so by the Employer, or Authorities.