Forsvarsbygg

PART III-B OF THE TENDER DOCUMENTATION

SHW AND EXTERNAL ENVIRONMENT
NS 8401-8405-8407

INVITATION TO TENDER
Contract: E3 Sea Barriers
Project: 540026 Protection Operational Part

TABLE OF CONTENTS

1 Introduction

1.1 Introduction

This document:

a) specifies the builder's HSE goals
b) specifies requirements for how the purpose of SHW shall be addressed during engineering and execution
c) describes the activities that shall be initiated to ensure compliance with the SHW requirements
d) is a tool for embedding the SHW mindset in the projects

This is a governing document for the builder's work, for the designers, and for the contractor and its subcontractors.

2 SHW goals in the project

2.1 The project's SHW goals

The project's SHW goals are:

a) No one shall end up with poorer health or suffering from permanent injury due to occupational accidents on the construction/installation site.
b) The absence due to injury target that shall be achieved is an H-value or 10 or better.
c) The waste from new construction shall not exceed 25 kg/m2 (GIA).
d) At least 70% (based on weight) of the waste from new construction must be source separated.

3 Responsibilities and authority

3.1 Norwegian Defence Estates Agency

The builder shall:

a) Send prior notice to the Norwegian Labour Inspection Authority pursuant to section 9 of the Construction Client Regulations and section 6 of the Working Environment Act. (Design and build contractor's responsibilities in design and build contracts.)
b) Appoint a coordinator (KP) for the engineering phase and sign a special agreement with the party appointed.
c) For design and build contracts the builder shall appoint a coordinator for the engineering (KP) and will sign a special agreement with the party appointed.
d) Appoint a coordinator (KU) for the execution phase and sign a special agreement with the party appointed.
e) Ensure that a SHW plan is prepared and kept up-to-date.

3.2 The designers

The designers shall:

a) Conduct the necessary risk assessments at start-up and throughout the entire engineering. Residual risk, including which risks require specific measures, shall be described in a SHW plan.
b) Prepare a SHW plan for engineering.

3.3 Contractor

The contractor shall:

a) Implement the builder's project specific SHW plan and inform the builder of situations that are not described in the plan.
b) Continue the SHW plan for the execution phase.
c) Integrate the builder's SHW requirements as part of the contractor's own systems.
d) Ensure that the builder's SHW requirements also apply in contracts with subsuppliers and subcontractors.

The contractor has a duty to have or establish an internal control system and fulfil its obligations with respect to health, safety and the environment on building and construction sites pursuant to the contract's provisions and the laws and regulations that apply at any given time, as well as the builder's plan for safety, health and the working environment and external environment for the relevant project. If these obligations are breached,

including the obligations listed below in this section, the builder has the right to halt the works if it finds this necessary, as well as demand daily liquidated damages pursuant to the provisions in Part II of the Tender Document's section 8.2 for NS 8405 or section 10.1 for NS 8407.

Further requirements for the contractor:

Waste plan and environmental treatment
The contractor shall initiate measures to ensure the correct handling of waste generated during the construction period pursuant to the applicable national and local regulations. The contractor shall ensure the construction waste is source separated. The contractor shall also initiate measures to minimise the quantity of waste generated in the construction period.
The contractor shall:

a) Prepare a waste plan that satisfies the Technical Regulations (TEK) that apply at any given time.
b) In the case of rehabilitation and demolition projects, prepare environmental treatment reports pursuant to the Technical Regulations (TEK) that apply at any given time.
c) Achieve a source separation rate of a minimum of 70% measured by weight. This includes demolition.
d) Ensure that the total quantity of waste in the project does not exceed 25 kg/m2 GEA. The requirement only applies for new construction and does not include demolition and uncontaminated soil from the preparation of building pits.

Waste accounts showing that the requirements have been fulfilled shall be submitted to the Norwegian Defence Estates Agency. Unless otherwise agreed, the accounts shall be submitted quarterly every 05.01, 05.04, 05.07 and 05.10.

Should a failure to fulfil the obligations result in a coercive fine being imposed on the Norwegian Defence Estates Agency, ref. section 17-6 of the Waste Regulations, the difference between the coercive fine and the amount the contractor has paid in daily liquidated damages and/or fines shall be charged to the contractor.

Clean and dry building plan
The construction site must be tidy and comply with RIF's clean dry building standard. The area used for rigging, construction and installation must be kept to the minimum necessary to execute the stipulated works.

Safe job analyses
The contractor shall:

a) Carry out surveys and assessments of risky work operations before construction commences (risk and vulnerability analysis - RVA). Measures shall be described in the SHW plan.
b) Conduct safe job analyses for work that entails special risks.
c) Conduct specific safe job analyses ordered by the builder.

The results of the safe job analyses must be documented. The documentation shall include signed participant lists that show which workers have participated in the various analyses. Only employees that have participated in and confirmed their participation in the safe job analysis with their signature are allowed to participate in the relevant work operation.

Dust, noise and vibrations
The contractor must prevent:

a) Dust spreading from relevant work operations.
b) Mud from construction traffic ending up on public roads and must ensure the roads and vehicles are cleaned as necessary.

The construction shall be executed in a manner that produces the least possible noise and vibrations.

Building and construction activities (e.g. blasting, sheet piling and piling) that can generate noise and vibrations must be identified and the consequences of these assessed.

The contractor must assess how the building and construction activities will be executed such that threshold limit values for noise and vibrations are not exceeded.

Health and environmentally hazardous substances and products
Materials and chemical products that will be used in the construction phase and/or in the operation of buildings must be assessed with respect to HSE.

Unless otherwise is agreed, the contractor must implement measures aimed at avoiding the use of chemicals and products during the construction period that are on the authorities' priority list of chemicals whose emissions must be significantly reduced by 2010. The same applies to chemicals and products that, in terms of weight, contain more than 0.1% of substances on the authorities' warning list. For both lists see www.miljostatus.no (under chemicals/chemical lists).

The contractor shall maintain an overview of the incidence of the above-mentioned chemicals and products, and shall, every quarter, report any use of the aforementioned to the builder. If the use of chemicals and products mentioned above is planned, the type of chemicals and reasons why their use is necessary must be explained, including the possibility of using substitutes. The first report shall be submitted fourteen days after signing the contract.

The planned use of health and/or environmentally hazardous substances and products during the construction phase or operation must always be assessed with respect to the possibility of substituting them with less hazardous substances, ref. provision of section 11 of the Working Environment Act and the Product Control Act. Substances or products classified as carcinogenic, mutagenic or toxic to reproduction, allergenic, or environmentally harmful must be avoided. Substances on www.klif.no's priority list are not wanted. If it is proposed that such materials be used, the builder must be informed and consulted.

HSE data sheets must be supplied for all chemical substances and products that will be used during the construction phase or whose use in the operation or maintenance of the installation is planned. The HSE data sheets must be in Norwegian.

A separate substance index must be established that contains the HSE data sheets for the chemical substances and products used in the construction phase. The substance index must be stored such that it is readily available to workers on the construction site and must be kept up-to-date during the entire construction period. The HSE data sheets must be included in the MOM documentation.

The contractor must ensure that all storage, handling and disposal of chemicals, fuel, oil, etc. comply with the law and regulations. Discharges of diesel, oil or other chemicals must not occur. Fuel tanks, oil and chemicals must be stored such that run-off and accidental spills are collected in traps. Tanks and containers must be labelled in accordance with the regulations. Fuel must be filled without discharge to the ground. Exhaust gases from vehicles and other technical equipment must not exceed the applicable threshold limit values. Idling must be avoided.

Machinery and equipment
The contractor is responsible for ensuring that the condition of all machinery and equipment brought onto the construction site is in accordance with the regulations. Documentation (certificates and inspection records) for machinery and equipment subject to certification must be kept on the construction site.

Security on and of the construction site
The contractor shall secure the construction site with approved fencing and access control. The security must be adapted to the specific location.

Protection of vegetation

In some cases the builder will want to protect the existing vegetation. Vegetation that must be protected in areas where building and construction works will take place will be marked by the builder. The contractor is responsible for protecting the vegetation and taking the necessary precautions to avoid it being damaged.

Cultural heritage finds
If the contractor discovers a cultural monument, it must immediately halt all work around the cultural monument, implement the necessary protection measures, and inform the builder. The contractor may also have an independent duty to inform the relevant police or cultural heritage authority about the find pursuant to the Cultural Heritage Act.

Training
The contractor must ensure that all relevant SHW training is completed before work commences on the construction site. In order to ensure that everyone who will work on the construction site undergoes the training, the contractor must plan and implement SHW courses on the construction site. The courses should be of a few hours' duration and everyone on the construction site must participate. The builder's representatives must be given an opportunity to participate in the SHW courses.
The contractor must keep a list of who has undergone the training and report this on a monthly basis.

Mandatory membership of a take-back scheme for packaging
A Norwegian contractor (VAT registered in Norway) must, by no later than the signing of the contract, submit documentation (proof of membership of Grønt Punkt Norge AS or an equivalent scheme) confirming that it is a member of a proper take-back scheme for the final treatment of packaging or fulfils this obligation through its own equivalent take-back scheme. If the contractor believes that it will not use packaging, it must, by no later than the signing of the contract, submit a written declaration to this effect to the builder.

Choice of eco-labelled products
Where more than three alternative products are available on the market, those that are eco-labelled must be chosen (Swan ecolabel, EU ecolabel, or equivalent).

Tropical timber and protected forests
Due to the builder not wanting materials sourced from rainforests or protected forests in its buildings or on its construction sites, and because of the lack of reliable certification schemes for timber, the contractor must plan and execute the contract work in a manner that ensures tropical timber is not used or to be found on the construction site.

The contractor may apply to the builder for dispensation in relation to this. Such an application must be accompanied by documentation from a reliable, independent third party concerning the country of origin and type of wood, as well as assurance that the timber does not come from rainforests or protected forests. The builder will use its discretion to decide whether dispensation will be granted and would particularly like to stress that such dispensation cannot be counted on.

Acceptance of the contractor's tender must not be regarded as conveying dispensation in accordance with this provision.

If, despite the above rules, timber from rainforests, protected forests or tropical timber not approved by the builder is found in the contract work or on the construction site, this will be regarded as a defect that the builder is entitled to require be rectified at the expense of the contractor regardless of the cost of such rectification. In addition to this, the builder will be entitled to demand coverage of its losses due to the defect. Furthermore, the contract's sanctions for breach of contract will apply.

Waste Regulations and double glazing panes
The contractor must document that the manufacturer in Norway or importer into Norway of any double glazing panes that are used in the execution of the contract work participates in a take-back system for scrapped PCB-containing double glazing pane, ref. chapter 14 of the Waste Regulations of 01.06.2004 No. 930.

Other requirements

- The wearing of helmets and protective footwear/boots is mandatory on the construction site.
- When using jointing plates, only plates with a hook at the end, or loops, may be used. Alternatively, the reinforcement can be covered by wooden boxes at the top. Plastic cups are not an acceptable alternative.

3.4 Principal undertaking

The builder must specify the principal undertaking for the various phases of the development.

The principal undertaking must:

a) Draw up a preparedness plan aimed at limiting the scope of harm in the event of unwanted events The preparedness plan shall cover the following main points:
   - Responsibility for preparedness
   - Preparedness equipment and location
   - Notification procedures
   - Personal injury
   - Fires
   - Acute contamination of the outdoor environmental
   - Material damage

b) Be responsible for ensuring safety rounds are carried out at least every fourteen days. each individual contractor must carry out weekly safety rounds within its contract - responsibility for ensuring they are carried out lies with the principal undertaking
   All safety rounds must result in a written report and be followed up.

4 Reporting requirements

4.1 Monthly reporting

The contractor must produce a monthly summary report for SHW and the external environment. The report must encompass all subcontractors. The status day for monthly reports is the last Sunday of each month and the reports must be sent to the builder within five workdays after the status day.

The form in Appendix 3 must be used for this reporting. The form can also be obtained electronically by contracting the builder.

The contractor must report who has undergone the mandatory HSE training on a monthly basis, ref. chapter 3.

The contractor must report accidents and near accidents on the form in Appendix 2 or on a separate form that, as a minimum, contains the same information.

Appendix 1: HSE deliveries

Phase	Performance	Offer	Start	Execution	Delivered
DESIGN	Complete HSE declaration	X			
	Proposed candidate KP, if requested		X		
	Start risk assessments		X		
	Prepare a SHW plan for execution			X	
EXECUTION	Complete HSE declaration	X			
	Updating of SHW plan for execution		X		
	Waste plan		X		
	Clean and dry building plan		X		
	Risk and vulnerability assessments (RVA) if needed			X	
	Documentation of appointment and training of safety deputies		X		
	Document that safety rounds are carried out			X	
	Monthly updates HSE - training			X	
	Document that a substance index with HSE – data sheets has been established			X	
	Documentation certificates for equipment		X		
	Monthly summary report for SHW and external environment			X	
	Report SHW at construction meetings			X	
CONCLUSION	Documentation of relevance for future works			X	

Appendix 2: Form for reporting unwanted incidents

<table>
<tr><td colspan="4">Location incident occurred:

Involved (company/unit/person):

Time and date:</td></tr>
<tr><td colspan="2">Reporter's name:

Tel.:</td><td colspan="2">Unit/department/project:

Email:</td></tr>
<tr><td>Nonconformity area:</td><td colspan="3">☐ Near accident ☐ Accident ☐ Nonconformity ☐ Complaint ☐ Improvement suggestion</td></tr>
<tr><td>In the case of an accident, the incident was reported to:</td><td colspan="3">☐ Ambulance, Tel. 113 ☐ Police, Tel. 112 ☐ Fire service, Tel. 110</td></tr>
<tr><td>Others who were notified:</td><td colspan="3"></td></tr>
<tr><td>Nonconformity category:</td><td>☐ Discharge/pollution
☐ Building/installation
☐ Fire/near fire
☐ Operational waste
☐ Structural waste</td><td>☐ Electrical system/equipment
☐ HVAC and sanitary
☐ Building/installation
☐ Information security (non-classified information)</td><td>☐ Working environment
☐ Other
☐ Service quality
☐ Chemicals
☐ System, documents, procedures</td></tr>
<tr><td colspan="4">Description (describe the incident step-by-step, do not include any personal information):</td></tr>
<tr><td colspan="4">Any immediate measures implemented:</td></tr>
<tr><td colspan="4">Proposed measures:</td></tr>
<tr><td>Others who were notified:</td><td colspan="3"></td></tr>
<tr><td colspan="2">Reporter's signature:

Delivered date:</td><td colspan="2">Recipient's name:

Department/unit:

Received date:</td></tr>
</table>

Must be completed by executive officer:

Consequences	☐ Less serious	☐ Serious	☐ Very serious/critical
Actual outcome	☐ Less serious	☐ Serious	☐ Very serious/critical
Description (do not include any personal information)**:**			
Cause (cause category and comments)**:**			
Measures (incl. measure type)**:**			
Final assessment:			
Probability of repetition:			
Closer's signature **Closed date:**			

Appendix 3: Monthly summary report for SHW and external environment

(Available in electronic format from NDEA)

Monthly summary report for SHW and external environment

Company:	Contract, location/installation:	Project no.:	Place, date, signature of responsible manager

Brief description of the works this month

Safety, health and working environment (SHW)

Crew/hours worked

No.	Crew	Hours in period	Hours in year	Hours since construction started
Main contractor employees				
Subcontractor employees				
Total				

Use of overtime

Hours in period	Hours in year	Hours since construction started

Injury/damage category

		A			B			C		
		No.	in period	Cumulative	No.	in period	Cumulative	No.	in period	Cumulative
1	Person	Injury requiring first aid			Injury with absence up to 3 days			Injury with absence of 4 days or more		
2	Environment	Slight environmental damage			Medium environmental damage			Serious environment damage		
3	Materiel	Material damage up to NOK 10,000			Material damage NOK 10,000 - 100,000			Material damage more than NOK 100,000		

Personal injury and materiel damage reports must be submitted immediately on a separate form.

Near accidents

1:	Person				2:	Working environment				3:	Materiel			
	No. in period		Cumulative			No. in period		Cumulative			No. in period		Cumulative	

Work or working environment related sick leave

Cases	in period	Cumulative
Up to 3 days		
4 days to 2 weeks		
2 weeks or more		

Days absent	
in period	Cumulative

Total sick leave

No. of days	
in period	Cumulative

Sick leave in period ..... %	Cumulative ..... %	Total absence in period ..... %	Cumulative ..... %

Safety rounds conducted in period, date:

SHW meetings conducted in period, date:

Hazardous work stopped in period	No.	
Safe job analyses conducted in period	No.	
Recorded breaches of SHW provisions, laws or regulations in period?		
Has the surveillance authority be on site in period? Yes: No:	Instructions:	