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## ESS GUIDELINES FOR ACCESSING AND PERFORMING WORK ON SITE

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The content of this document has been primarily based on the site principal contractor's [SEC (Skanska)] own equivalent document (in Swedish), which is that applicable on site for areas outside of those under ESS control.

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## 1. GENERAL INFORMATION

### 1.1 Purpose and Scope

This document sets out the guidelines for ESS Stakeholders regarding access and performing work on site. The document corresponds with SEC's 'Guideline for ESS Stakeholder Access'. The document is applicable to the different access types that are valid on site, each of which is described in this document. The document is aimed at ESS Stakeholders and shall only be used as a guideline within ESS and as a platform for development of documentation such as routines, instructions, procedures, requirements, and guidelines related to installation work executed by subcontractors and in-kind partners.

All supplementary documentation that is linked to in this document will be on found on CHESS. Contractors without access to CHESS will receive the documents from their contact person within ESS.

### 1.2 Abbreviations and Explanations

**CF:** Conventional Facilities. The division at ESS that prepares and executes the construction of European Spallation Source. Responsibilities include all buildings and systems required for the operation of the Accelerator, Target and Instruments, as well as site and infrastructure preparation, construction support, all facility buildings, user and general service buildings.

**ESS Stakeholder:** Refers to the other divisions (other than CF) at ESS including their in-kind partners.

**FM:** Facility Management; The organisation managing the operation, maintenance and security of the facility buildings. Further details are given in chapter 8.

**MEP:** Refers to the separate SEC-division handling contractors working within the Mechanical, Electrical and Plumbing field. "MEP-systems" is often used as a general phrase for all building installation systems.

**SEC:** Refers to Skanska ESS Construction HB, the company contracted by CF for performing the construction work.

**Stakeholder contractor:** Refers to an external contractor, employed by ESS Stakeholder, that will carry out work on site. This work will be executed either concurrently with SEC or when SEC has completed their own scope of work.

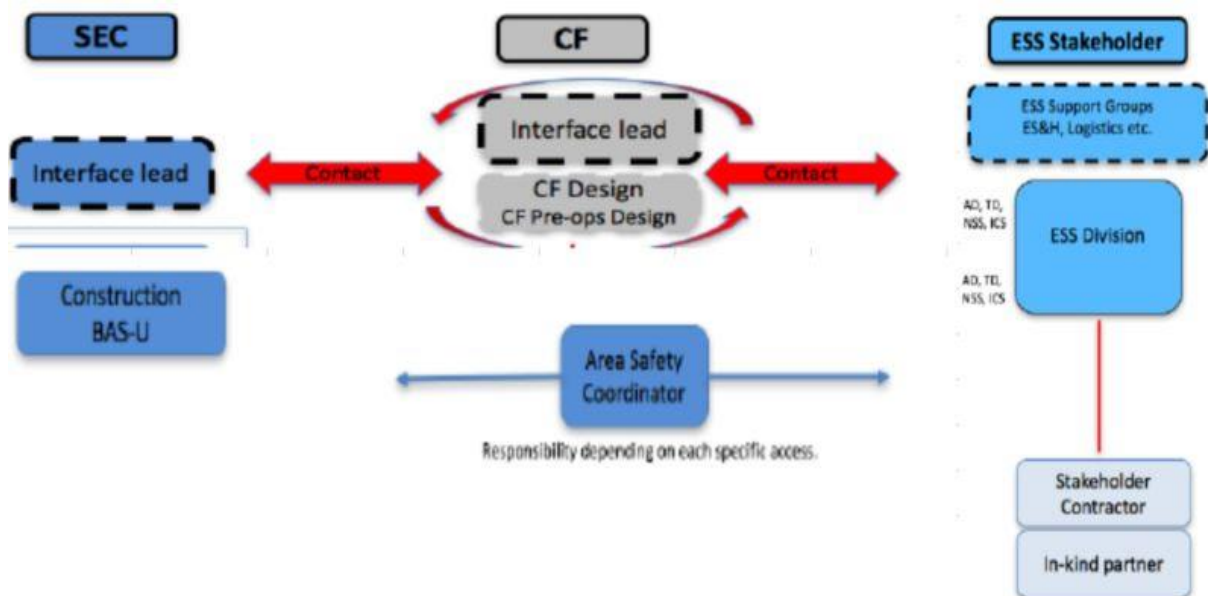
## 2. ORGANISATIONAL SETUP

The CF Interface Lead organises and coordinates CF/SEC interface activities. SEC resources will be involved in the interface activities during both the pre-planning phase prior to access and once the Stakeholder installations have commenced on site.

The chart below outlines the general organisational set-up of ESS/SEC for all Stakeholder Interface items and discussions. It is expected that each ESS Stakeholder Division will have a similar set up, or as a minimum a dedicated team of persons to handle and manage all Interface discussions with CF/SEC. CF's/SEC's formal contact is directly with the ESS Stakeholder, both prior to and post access, and not with, for example, in-kind contractors. All discussions will be carried out directly with the relevant ESS Stakeholder, who will then liaise with their respective contractors.

The chart below visualises a general organisational set-up for the interface activities. The SEC Interface Lead represents SEC in the interface work. In the preparatory work/process for stakeholder access, SEC will be represented by a variety of people. These people will have different areas of responsibility within the SEC and will be affected by the stakeholder access. These people will participate in the preparatory meetings and are available for questions and support prior to the access. The Stakeholder organisation will communicate with the CF Interface Lead prior to access. After access, the Stakeholder has the opportunity to directly communicate with SEC (mainly thorough the SEC Interface Lead) regarding various matters and issues. The chart below shows the different ways to communicate in relation to various issues. Each specific issue (red arrow) is referring to a chapter in this document describing the process in more detail.

Please note, the chart is only a general overview to visualise the expected roles, responsibilities, and communication paths. SEC will not propose the ESS organisational set-up. It is important that there are ESS roles that correspond to and interact with the responsibilities on the SEC side.



### **3. ACCESS**

#### **3.1 Agreement of Access Dates**

The access date will be agreed between client and contractor and coordinated according to building work and work by other contractors; e.g. between SEC, CF and the individual ESS Stakeholders on a “building by building” or “area by area” basis.

#### **3.2 Access Types**

Contractors on site must be prepared to perform the work in parallel with other contractors in the same area. The activities will be coordinated by the ESS organisation in collaboration with the contractors.

Once the construction of a building has been completed, it is handed over for installation. However, construction work will be ongoing for a significant period of time, meaning installation work will be ongoing at the same time in defined areas. Due to this there may be different access types to separate areas on site.

- Early access: building construction activities are still ongoing and minor installation work has started. SEC acts as Construction Safety Coordinator (BAS U)
- Parallel access: building construction activities are still ongoing and installation work is ongoing. SEC acts as Construction Safety Coordinator (BAS U)
- Partial access: minor building construction activities are still ongoing and installation work is ongoing. The ESS Stakeholder appoints an Area Safety Coordinator, who is leading the designated area as safety coordinator. The Area Safety Coordinator communicate and report to the overall construction safety coordinator (BAS U).
- Full access: building construction activities are complete and installation work is ongoing. ESS Stakeholder has an “Area Safety Coordinator” and SEC remains as the overall site Construction Safety Coordinator (BAS U). The Area Safety Coordinator communicate and report to BAS-U.

### **4. PRE-ACCESS PROCEDURE**

#### **4.1 Background and Purpose**

As described in chapter 3, there are various access types; *Early Access*, *Parallel Access*, *Partial Access* and *Full Access*. Regardless of the access stage, there is a strong need to set out the detailed conditions specific to each access. In order to handle this, there will be an agreed process of meetings, inspections, and documentation from the agreed access date to the actual access date. During this period, the workflow and working procedures correlated to the ESS delivery and installation of equipment shall be defined in order to ensure that all parties fulfil their obligations concerning each specific access.

The procedure includes the interface activities from the agreed access date to the actual access date. The specific access dates for each relevant building or building area are

formalised in discussions between SEC, CF, and the different ESS Stakeholders. Once agreement is reached, a number of frequent meetings/activities will be held in order to ensure that the ESS Stakeholder has sufficient time in advance to plan their pre-start activities and to ensure that all their sub-contractors have the required education and knowledge to comply with the legislation, regulations, and rules valid at the ESS Construction Site. If all necessary preparatory paperwork is not in place and signed-off it will not be possible to commence work on site. Additional complementary sub-meetings will be held to discuss and agree specific points that require specific or additional attention. The main purpose of the meetings is to ensure that all parties are fully aware of what they are expected to deliver.

## **4.2 Meeting Procedure before Access**

Various types of joint meetings will be required between SEC, CF, and Stakeholder prior to access. Below are a number of required meetings. CF chairs the meetings and relevant people within SEC and the Stakeholder organisation are invited. The CF Interface Lead is primarily responsible for setting out a feasible schedule structure and coordinating the pre-start meetings.

The first pre-start meeting concerning each access milestone shall be held, when feasible, about six months prior to the agreed date. This timeframe has been chosen to ensure that the ESS Stakeholder has sufficient time in advance to plan their pre-start activities and to ensure that all their sub-contractors are in compliance with the site rules and protocols prior to commencing work. This meeting will then be followed up with additional meetings about three months before access and two weeks before access. If preferable, pre-start meetings can effectively handle more than one access milestone.

If required, further sub-meetings between the pre-start meetings will be arranged to agree specific points that require additional, more detailed discussions; for example, BAS U, Logistics etc.

If buildings include both partial and full access, for example G04, pre-start meetings may only be held for partial access dates. If a building only has one full access milestone, for example G01, all pre-start meetings will be held according to that milestone. Prior to full access, CF and the Stakeholder will set up a series of meeting for clarifying the status on Stakeholder requirements. At these meetings other issues, such as JIRA-questions etc., may also be on the agenda. The CF Interface Lead chairs the meetings and sets the agenda, which will be customised for the purpose.

The meeting structure shall also apply for *Early access*, but is a little more flexible depending on the scope of work, complexity, schedule etc. It is important to highlight that even if the scope of work is small, the same lead time is required in order to review documents, work instructions etc. to enable Stakeholder access.

Pre-start meeting	Description
6-month Pre-start (6-PSME)	This meeting is planned between four and six months prior to the access date. The main purpose of 6-PSME is not to resolve all matters but rather to start planning to be ready for access and to identify early issues and assign responsibilities for issue resolution. Another purpose is to get to know each other's organisation.
3-month Pre-start (3-PSME)	3-PSME is normally planned between two and three months prior to the access date and includes following-up on still open issues from the 6-PSME and identifying and assigning responsibility for any new/current issues for access. One topic is to clarify the status of temporary/permanent utilities at the access date.  The 3-PSME should include a site visit to capture any issues not considered but that have to be handled before access.
2-week Pre-start (0-PSME)	0-PSME is normally planned between one and three weeks prior to the access date. It includes following-up on still open issues from the 6-PSME & 3-PSME. 0-PSME usually includes a site visit with production staff from SEC.

### 4.3 Inspection Procedure before Access

In order to facilitate the handover of any access milestone, an inspection will be carried out. The inspection's purpose, participants and agenda will vary depending on whether it relates to early, partial or full access. The general purpose is to determine if requirements on parties are fulfilled for the access agreement and set a status on structural and architectural completions, through a visual inspection.

The building inspector has the mandate and decides if access conditions are fulfilled without remarks or with remarks that is acceptable for the parties involved. The inspection protocol will list outstanding items and remarks with latest completion dates.

The inspection protocol will be adapted to, and contain, relevant documents for each building. The main content is as follows:

- Guidelines for stakeholder access
- Guidelines for what can acceptably be performed in the buildings after FA; i.e. drilling holes/sealing/safety/fire safety etc.
- Pre-start meetings – six months, three months, two weeks before access.
- Partial access inspections (PAI)
- Full access inspection (FAI)
- Requirements/verifications
- Operation & maintenance manuals for items that fall under Stakeholder control.
- Documents list from CF-design (Basis for as built, IFC – drawings)
- Status lists on PIN 1 and PIN 2
- Status list on NCRs
- Contact list
- Other relevant documentation



Participants during inspections shall represent CF, SEC and the Stakeholder. The CF Interface Lead is responsible for inviting relevant people to the inspections. The CF Interface Lead may delegate the execution of an Early access inspection (EAI) to SEC.

Inspection	Description
Early access inspection (EAI)	<p>CF leading inspection (Interface Lead) or Section Manager in SEC organisation.</p> <ul style="list-style-type: none"> <li>- Inspection on site</li> <li>- Meeting <ul style="list-style-type: none"> <li>• Schedule, access period</li> <li>• Status working area (note damages etc.; photo)</li> <li>• Safety issues</li> <li>• Other issues</li> <li>• Summary</li> </ul> </li> </ul>
Partial access inspection (PAI)	<p>CF leading inspection (Interface Lead)</p> <ul style="list-style-type: none"> <li>- Meeting <ul style="list-style-type: none"> <li>• Schedule, access period</li> <li>• Access agreement view <ul style="list-style-type: none"> <li>○ Discrepancies</li> </ul> </li> <li>• Current status <ul style="list-style-type: none"> <li>○ Status PIN1,2/SAT2,3</li> <li>○ Status SHIN, SHME</li> <li>○ Status NCRs</li> <li>○ Areas not available</li> <li>○ Status agreed temporary utilities</li> </ul> </li> </ul> </li> <li>- Inspection on site (note damages etc.; photo)</li> <li>- Summary</li> </ul>
Full access inspection (FUI)	<p>CF leading inspection (Interface Lead)</p> <ul style="list-style-type: none"> <li>- Meeting <ul style="list-style-type: none"> <li>• Review of PAI documentation</li> <li>• Access agreement view <ul style="list-style-type: none"> <li>○ Discrepancies</li> </ul> </li> <li>• Current status <ul style="list-style-type: none"> <li>○ Status PIN1,2/SAT2,3</li> <li>○ Status SHIN, SHME</li> <li>○ Status NCRs</li> <li>○ Status agreed temporary utilities</li> </ul> </li> </ul> </li> <li>- Inspection on site (note damages etc.; photo)</li> <li>• Inspection on site</li> <li>- Meeting <ul style="list-style-type: none"> <li>○ Comparison of PAI and decision of repairing</li> <li>○ Summary inspection</li> </ul> </li> </ul>

## 5. FORUM DURING ACCESS

Various meetings will be arranged after access to ensure that good communication and co-operation are established between the Stakeholder, CF, and SEC. These meetings/forums are a vital part of how the interface work will be managed and decisions made. An interface meeting structure is established in order to manage interface issues in different forums. All meetings will have a well-defined agenda, purpose, and designated participants in order to achieve a good outcome from every meeting. These meeting will involve persons from SEC, CF and/or ESS Divisions. The pre-access meetings, as described in chapter 4, will be established in order to enable all parties, in good advance of the access date, to make all preparations that are necessary before each specific access. After access, meetings regarding both overall interface issues and specific topics (for example, overall site coordination, building coordination, Bas-U coordination, MEP-system coordination) will be held. SEC and the CF Interface Lead will primarily chair these meeting.

## 6. SITE FACILITIES

### 6.1 General Responsibilities

This section identifies the considerations that must be undertaken by the ESS Stakeholders and their contractors from the time of access, in terms of the site logistics and the services currently provided and in operation by SEC Site Facilities, in what will be an ongoing construction site. Some or all of these requirements may be generic to all access dates, whilst some may be unique and will be applied specifically to the Parallel, Early, Partial and Full Access date in question.

A document has been developed with the purpose of systemising and controlling the flow of materials, tools, and personnel together with the management of site establishments and temporary media.

- *ESS Site Logistics: ESS-0147101*

### 6.2 Site Accommodation – Stakeholder Operatives and Management

Site accommodation refers to the office and welfare facilities that will be required for all operatives and staff working on site for the ESS project. The final order for expected site operative and management workspaces should be made available no later than three months prior to the date of access to ensure that the facilities can be procured and constructed in adequate time. All welfare facilities (toilets, canteens, drying rooms and changing areas) will be located within the designated main compound area, which is located just outside the working site. Access to the site from the main compound area is through secure turnstiles using an ID06 card. It will not be permitted to eat food within the fenced-off site area (accessed via the secure turnstiles). This also applies to permanent building installations (both toilet and canteen) that will be part of the Early and Partial access dates – these facilities will not be permitted to be operational. Temporary toilet facilities will be available at designated areas around the site (within fenced off area), which will be installed by SEC Site Facilities.

## 6.3 ID06

All contractors operating on site must be in possession of a valid ID06 card. Site induction is required for activation of the ID06. Pre-registration for attendance to site induction shall be completed at least one working day prior to arrival.

- *Pre-registration form:* <https://c101portal.esss.lu.se/pre-registration-new-personnel>
- *Registration Site Induction:* <https://c101portal.esss.lu.se/reg-induction-eng>

If ID06 is missing upon arrival on site, a temporary card may be issued for 500 SEK, which will be valid for six weeks. No renewal of this card is accepted. ID06 cards will be coded for site access once the cardholders have attended the safety induction course.

## 6.4 Visitors

All Stakeholder visitors shall be reported to and approved by SEC prior to the visit. This process shall be managed by request through the ESS Communications Division, who will then liaise with the responsible SEC person on site. A minimum notification period of two days is required for single visitors. For larger groups, an additional notification period will be required. Only Site Visits Responsible (SVR) may bring visitors to site. A SVR must undergo additional training, given by the SEC Communications Officer.

## 6.5 Work Outside Normal Site Working Hours

The normal site working hours are currently 07:00 to 16:00, Monday to Friday. For all work outside normal working hours, a request must be made at least two days in advance by filling in the form 'Request for work outside working hours'. If the application for additional working hours is for a sustained period of time it can be included in one single request. The applicable routines for working outside normal working hours shall be known (emergency chain with *Nokas* both in office and at site etc.).

- *Form Request to Work Outside Normal Working Hours:* **ESS-0147090**

## 6.6 Access Routes to Site

For the duration of the work until SEC's final handover to CF/ESS, SEC will retain control of the main site access roads throughout the ESS Site Area.

The access routes may change on a daily/weekly basis depending on the activities ongoing at site on that time. As a minimum, a designated pedestrian access will be provided to the ESS Stakeholder and their contractor's place of work. The final route for vehicular deliveries on a given day will be clearly identified by the Security Guard at the site entrance. For up-to-date access routes, see the below links. To obtain vehicle access to the site, a form must be filled in by a supervisor within SEC, which is applied for at the reception desk.

Where practical, all main pedestrian access routes are segregated from vehicles by barriers. Due to the fact the number of vehicles on site must be reduced, personal transportation on-site shall primarily be done on foot.

- *Construction Site Layout showing main temporary facilities, site buildings, equipment and infrastructure: **ESS-0147103***
- *Traffic Management Plan explaining the strategy and general guidelines of how access control and traffic flow shall work on the ESS Construction Site: **ESS-0129469***
- *Permit for Vehicle Access to site: <https://c101portal.esss.lu.se/application-vehicle-access-site>*

## 6.7 Road Management

SEC Site Facilities is responsible for road management on site, including pedestrian access routes, until the SEC Project Handover, as well as all active construction areas under the control of SEC within that period. This will also include all access and egress routes to the perimeter of the agreed access area. The ESS Stakeholder will be responsible for the maintenance of the area within their designated compound/storage area.

## 6.8 Signage

Signage on site within all SEC controlled areas is managed by SEC Site Facilities. This will also include all access and egress routes to the perimeter of the agreed access area. Specifically, in relation to Partial and Full Access, the ESS Stakeholder is responsible for all signage within the perimeter of their designated and agreed area.

## 6.9 Delivery Booking System

SEC Site Facilities operate a site-specific delivery booking system which will be made available to the ESS Logistics Group. All planned deliveries to site must be pre-registered and authorised in the delivery booking system at least 48 hours before arriving on site. In the case of ESS Stakeholder Divisions and associated work contractors, this should be completed through the ESS Logistics Group, which is connected to the SEC Site Facilities system.

If the ESS Stakeholder and their contractor have large, oversized, or fragile deliveries coming to site that require the use of the primary roads then these deliveries must coordinate with SEC's Logistics Team as parts of the roads have weight restrictions.

All ESS Installation deliveries are managed and booked through the **ESS Logistics Group**.

- *Delivery Management Plan: **ESS-0129466***
- *Instruction Delivery Booking System: **ESS-0129464***

## 6.10 Unloading Zone

A plan of unloading zones is accessible from the delivery booking system to communicate the final destination of each delivery. A specific unloading zone must be stated when placing a delivery booking. If a new unloading zone is required on site (i.e. new lay-down areas), this must be communicated to ESS Logistics at least two weeks prior to first delivery booking being made. ESS Stakeholder shall apply and book all unloading zones through ESS logistics.

## 6.11 Unloading Resource

If the ESS Stakeholder or work contractor wishes to use the site-based unloading service then this shall be booked in the delivery booking system. The service is managed by *Skanska Maskin* weekdays 7am-4pm. The relevant details can be obtained directly from the ESS Logistics Group.

## 6.12 Storage Area

A Stakeholder is expected to require logistics areas on site. In general, only smaller areas in close vicinity of the buildings can be foreseen; larger areas for logistic needs will be located further away from the buildings. During the pre-start meetings, remote compound/storage areas will be assigned to each ESS Stakeholder requiring an area. Provision will also be made for a small number of containers to be placed directly adjacent to the work area, where the available space permits this, if so required by the Stakeholder. Containers must be registered prior arrival by filling in this form:

- *Application for Container Space: ESS-0147089*

## 6.13 Waste Handling

The ESS Stakeholder waste handling will be managed by CF/SEC during all accesses. However, it will be the ESS Stakeholder's responsibility to ensure that the waste is sorted correctly and delivered to the designated zones and segregated accordingly. The specific requirements, location and size of the waste handling zone shall be agreed in adequate time before work begins. Mandatory waste training is provided by CF/SEC and shall be completed by the Stakeholder's on-site personnel.

Waste to landfill is not accepted. Part of the planning process must ensure that the work activities will not generate any waste to landfill.

All waste shall be sorted. There are two systems provided for sorting; labelled bins and containers, or unlabelled bins. In the labelled bins and containers, the waste is sorted into the labelled elements. These bins and containers can be used both for indoor and outdoor work.

The unlabelled bins are primarily used for indoor work. There are collection points for unlabelled bins, where empty bins can be picked up by the user, and where the user can bring back full bins. The waste shall be sorted in the same elements as in the labelled bins. The first piece of waste that is placed in an unlabelled bin decides the element of that bin. For example, if a piece of metal has been thrown into an unlabelled bin, only metal can be sorted into that bin. If a piece of treated wood has been placed in an unlabelled bin, only treated wood can be sorted into that bin, and so on.

The user shall pick up as many bins as needed from the collection point; one bin for each waste element that will be generated by the work. Signs are located at the collection points with information about the different elements. Where there is a need for other elements, Site facility shall be contacted. When the work is finished or the waste bin is full, the user shall return the bin(s) to the collection point. There is a document showing

how waste shall be minimised, controlled, handled and sorted at the construction site.

- *Waste Management: ESS-0147102*

## 6.14 Electrical Power

Electrical power will be provided to each building/area of access. This comes either from temporary supply boards or the permanent installation. The exact requirements in terms of specification will be discussed at the series of pre-start meetings, starting six months from the first access date.

## 6.15 Gas Storage

The ESS Stakeholder's requirements for gas storage will be discussed during the pre-start meeting. Currently, SEC Site Facilities operate a central storage gas compound on site, with daily deliveries of smaller containers provided to each building by pre-arranged agreement.

ESS Stakeholders will be responsible for providing their own gas supply, unless otherwise agreed. The storage of these gases shall be under the Stakeholder's responsibility, with permits required for storage of flammable products. Permits will not be required for non-flammable gases.

All gas storage areas outside the central storage gas compound must be communicated to SEC Site Facilities in order to update the *Construction Site Layout* and *Insatsplanen*.

## 6.16 Locking System

Facility Management can, upon request, provide a temporary locking system prior to access consisting of a traditional lock and key system. For Parallel and Early Access, the normal SEC site procedures will apply; exceptions can be made by prior agreement, however this will be at cost to the ESS Stakeholder.

The locking system (ESS access control system) will be implemented incrementally. Options for how this will be arranged before final handover will be regulated in separate agreements between SEC, CF and the ESS Stakeholder, building by building.

## 6.17 Security

SEC Facility management is responsible for the site-wide physical protection and security. The SEC Facility management is to be used as initial support in security matters and further guidance. ESS has a representative for security issues related to workplaces under ESS control. For ongoing situations that need urgent intervention, such as trespassing, violence etc., the routines set out in the Emergency Contingency Plan shall be applied.

The site is surrounded by an alarmed fence and monitored by cameras. The intruder alarm will be transferred to a contracted security company for direct respond. During construction work on site, the gate for deliveries into the construction area is manned by guards.

Access into the site is shall be gained as set out in section 6.6, *Access Routes to Site*.

## 7. SITE SERVICES

For services needed on site, SEC has selected contractors for the construction work and services around this work. These contractors are aware of and are operating according to all of the site rules when performing work on site. For ESS Stakeholder Divisions and their associated contractors working during the various access stages, it will be possible to use these contractors for some services. It is at the discretion of the ESS Stakeholder Division which they would like to use. The ESS Stakeholder or their contractor can contact the service provider directly to discuss the terms and conditions of the services and to seek clarity on any questions/performance criteria that may arise.

For BAS-U coordination and site operational reasons it is mandatory to use the security company *Nokas* for security services on-site, *HEAB* for scaffolding services and *Skanska Maskin* for lift rental (MEWP's) and temporary electrical installations (>63amp). These companies are responsible for site-wide services.

- *Service Provider List SEC/ESS: ESS-0147103*

## 8. FACILITY MANAGEMENT

### 8.1 Support and Error Handling

When questions, errors in systems, or other queries regarding installation systems arises, the Facility Management (FM) organisation can be contacted. In each case, FM will evaluate the query and prepare and communicate an action plan. The given time for corrections or action will vary from case to case; no specific time frame can be settled beforehand. When the MEP-systems (in SEC-scope) are not fully commissioned and in operation, FM's ability to take action is limited. In this case, the CF Interface Lead shall be contacted for further action.

The Facility Management organisation will be manned weekdays 07-16.

- *Error reporting on areas covered by FM to Facility Management organisation, see contact list: ESS-0129458*

### 8.2 Use of Permanent Installations

At the day of partial and full access, the MEP-systems included in SEC's scope of work will be installed. Commissioning and testing may not be completed due to limiting factors, such as completion in other buildings or late incoming design. As many systems are served from other buildings, it will not be possible to perform final commissioning (SAT2 & SAT3). This means that the systems will not be operational until all commissioning and testing is done. During pre-access meetings, the status of the MEP-system at access and usage of temporary and permanent installations will be discussed and determined for each specific access. Responsibility, status, usage, and operation of temporary and permanent systems will be coordinated regularly between the Stakeholder, SEC

installation coordinators, contractors, and Facility Management. Any need for temporary supply will be agreed in the pre-access procedure. Issues regarding electrical responsibility shall be addressed with the SEC HS-team.

## 9. HEALTH AND SAFETY COORDINATION

### 9.1 General

This section describes how SEC fulfils its BAS-U responsibility.

SEC has prepared an occupational Health and Safety Plan on behalf of ESS ERIC. This shall be available to everybody at site and is a tool for enabling a good work environment on site. It describes the health and safety organisation, as well as the general health and safety risks existing on site, including how these must be planned to prevent occupational injuries and accidents.

- *Health and Safety Plan:* **ESS-0129307**

SEC has been appointed as the Construction Safety Coordinator, BAS-U, by ESS ERIC, which applies up to 31<sup>st</sup> August 2019. To fulfil the responsibility, SEC has distributed tasks within the organisation and appointed a person responsible for managing the administrative duties, Administrative BAS-U, and a person to manage overall construction coordination, Coordinating BAS-U (who is also the nominated formal contact person with the Swedish Work Environment Authority).

The areas of Skanska ESS Construction HB which are BAS-U are managed by dividing the site into sub-areas, each coordinated by an **Area Safety Coordinator**:

- *BAS-U Areas:* **ESS-0147103**

Contractors working in one area (typically a building with its adjoining lay-off areas) are coordinated by an assigned Area Safety Coordinator, who normally is the Production Manager or Installation Coordinator managing the majority of the works in that area. The appointed person has to be approved by the BAS U.

- *Tasks for Area Safety Coordinator is defined in the document "Area Safety Coordinator description":* **ESS-0129614**

### 9.2 Implementation of BAS-U Activities

#### 9.2.1 Induction on site

No one is allowed to enter the site without having undergone a site induction (pre-registration required), having knowledge of the General Conduct and Safety Rules of the site, or without being in possession of a valid ID06 access to site.

#### 9.2.2 Stakeholder Contractor routines, work instructions/risk assessments

The Stakeholder Contractor shall, via the Stakeholder, send documentation (e.g. Project plan/Business plan) describing their systematic work environment and safety routines and procedures to BAS-U. The Stakeholder Contractor shall also, via the Stakeholder,



inform BAS-U where documentation, such as certificates, permits etc., can be found. BAS-U shall be given the possibility to gain access to such documentation for checks and audits.

Examples on routines that shall be described in the Project plan/Business plan are:

- Accident and Incident reporting and follow-up
- Line of emergency response
- Delegation routines
- How the Stakeholder Contractor ensures that its personnel have the relevant work environment related knowledge and education (e.g. driving permits etc.)
- How health and safety inspection rounds are managed
- How the Stakeholder Contractor manages certificates and inspection protocols for tools and equipment
- How the Stakeholder Contractor ensures that required maintenance on tools and equipment is performed
- How the Stakeholder Contractor manages work environment related permits

The Stakeholder Contractor shall, via the Stakeholder, send work instructions and risk assessments for the work it is about to perform to the Area Safety Coordinator for submission to BAS-U. A process for this is described in the "Area Safety Coordinator description".

The BAS-U shall inform other contractors on site of new risks that can affect them, or have been identified, on a continuous basis. A process for this is described in the "Area Safety Coordinator description".

If the Stakeholder Contractor describes the use of special safety equipment such as scaffolding, lifting equipment in its work instruction, then it will be required to submit information, via the Stakeholder, regarding who is responsible for the equipment in question.

Lifting work requires pre-planning. For complex lifting work, a special lifting plan must be prepared.

If the Stakeholder Contractor states in its work instruction that a work permit is required, the Area Safety Coordinator will appoint who has the mandate to issue permits.

Health and safety inspection rounds are coordinated by the BAS-U contact person. The health, safety and environmental inspection in each area is led by the Area Safety Coordinator, and should be performed in compliance with 'Guidelines for Health, safety and environmental inspections'. It is the responsibility of the Stakeholder Contractor to ensure they are up to date with the relevant routines.

BAS U will perform checks and audits on continuous basis in order to verify and follow up that all work on site is in compliance with the rules and regulation stated in the Health and Safety Plan.

### 9.3 Planning

In order to review the contractors' time programme from a high-level perspective and to coordinate the various contractors' activities, the Stakeholder shall communicate the time programmes/planned activities to BAS-U. The purpose of this is to ensure that the planned activities will not result in health and safety hazards in ongoing work in adjoining areas, from a work environment perspective. If a situation arises where there is a hazard, the BAS-U may need to ask relevant the Stakeholder to reschedule the activities in question or introduce additional work procedures to mitigate the hazard. The intention is not for BAS-U to dictate the installation sequence of the Stakeholders' work, but rather ensure safe coordination with adjoining areas. The Stakeholder shall always retain primary responsibility for coordination of its work. The above coordination is primarily done in the Site Risk Hazard assessment and the Area Risk Hazard assessment, further described in the "Area Safety Coordinator description".

To coordinate activates so that contractors avoid imposing hazards on each other from a work environment perspective, coordination meetings are held weekly in each safety coordination area, in addition to weekly site coordination planning meetings. At these meetings the rolling-time programme, e.g. a three-week programme, shall be reviewed.

The following, among other issues, shall be discussed at the weekly planning meetings:

- Updated time programme
- Any changes in the planned work that might have a work environment consequence
- Highlight health and safety risks in each BAS U area (risk of the week) to be coordinated and mitigated, when needed.

### 9.4 H&S Training Matrix

Training for specific work shall be in accordance with Swedish Work environmental legislation and/or applicable training requirements. Presently, the following requirements and training matrix apply:

- *Safety Training Matrix for Installation Activities on Site: ESS-0147100*
- *Site Safety Training Requirements: ESS-0129647*

### 9.5 The Site

BAS-U prevents unauthorised access to the site through a combination of fence, guard, and camera surveillance. For all works outside regular working hours, a permit must be applied for from BAS-U, which is managed by SEC Site Facilities.

BAS-U shall carry out audits to check that each Stakeholder has the required amount of change cabins and welfare facilities to fulfil the current legal requirements. If it is found that the facilities in place are non-compliant with the regulations, the BAS-U shall request the contractor to take action to address the non-conformity.

A routine regarding common protective equipment is described in the "Area Safety Coordinator description".

## 9.6 Areas of Responsibility for Area Safety Coordinator

Where employees from more than one employer; i.e. Skanska, contractors, different ESS divisions, are working within a Safety Coordination area, then either SEC or ESS, whichever is responsible for the majority of the work ongoing in the area, is required to appoint an Area Safety Coordinator. The other employers with ongoing work within the same area then need to appoint a person responsible for coordinating and communicating with the appointed Area Safety Coordinator.

The Area Safety Coordinator shall plan and coordinate the work within the area, and is responsible for reviewing work instructions, as well as hazard and risk assessments, for work within the Safety Coordination area.

As the work progresses, the Area Safety Coordinator shall check that routines, work instructions, relevant permits, certificates, training requirements, and site rules are in place and complied with for the ongoing work within his/her area. It is the responsibility of each Contractor to ensure that the documentation named is in place.

The Area Safety Coordinator shall appoint a person or persons responsible for issuing permits within his/her area, based on the work ongoing or about to commence within the area. Examples on such permits are *Permit to lift* and *Hot works permit*.

The Area Safety Coordinator is also responsible for carrying out safety inspections according to the rules set out by SEC, which usually involves one inspection per week. The Area Safety Coordinator also participates in the monthly fire safety inspections.

Skanska produces a map showing the BAS-U areas and Area Safety Coordinators. This is a living document and as such is updated on a regular basis. An example of this map can be found in the additional information issued.

## 9.7 Dispute

If the Stakeholder Contractor does not comply with instructions given by the BAS-U and acts negligently from a work environment perspective, the BAS-U will inform the ESS Stakeholder, who shall then take further action as required. An example of an action that might be required could be to stop the Stakeholder Contractor's work until a non-conformity has been addressed. If the BAS-U and ESS Stakeholder representative are in disagreement over the actions required, the matter shall be escalated up the line of command in each organisation in order to find a solution. If this does not prove successful, the BAS-U will involve the Swedish Work Environment Authority to obtain their assessment of the matter.

## 9.8 Bas-U Coordination Meetings

BAS-U coordination meetings will be held monthly or as required. All BAS-U contacts and Area Safety Coordinators shall attend the BAS-U coordination meetings. Attendees at the meeting shall have the mandate to take decisions in work environment related issues, including decisions that might have time and/or financial implications for any of the

contractors involved. As a minimum, the following shall be discussed at BAS-U coordination meetings:

- Added risks and measures for how these risks are mitigated
- Updates to the Health and Safety Plan or other key procedures to manage health and safety coordination

In addition to the coordination meetings, toolbox talks addressing short-term safety issues and coordination of ongoing works are held daily.

## **10. ENVIRONMENTAL & SUSTAINABILITY RESPONSIBILITY**

### **10.1 Introduction to ESS Overall Requirements**

All applicable legal requirements, including the environmental court judgment and the permit conditions, according to the radiation protection act, shall be followed. The requirements specified below are to be seen as examples of ESS's interpretation of such requirements.

Sustainability-related risks shall be identified and mitigated and/or eliminated; these shall be documented. Activities that have a potential negative impact on the conditions in the environmental court judgment shall be controlled through their inclusion in the ESS environmental monitoring programme.

### **10.2 Legal or Environmental Court Ruling Requirements or Policies**

This section describes the legal, from an environmental perspective, or environmental court ruling requirements relevant for the SEC site, and how SEC apply these.

#### **10.2.1 Policy on sustainable selection of materials**

All materials brought onto the site to be built into the facility shall comply with the requirements in the document *TS, AD, NSS and ICS Plan and Implementation Strategy for Hazardous Materials and Sustainability* [ESS0017560], otherwise an approved exception to the requirements shall be obtained.

#### **10.2.2 Chemical products and hazardous waste**

All chemical products are subject to the substitution principle, meaning that the product least hazardous to the environment shall be used, with consideration given to the function, quality and cost.

Chemical products and hazardous waste shall be managed so that spillage or leakage cannot reach the sewage system or the surroundings. They shall be stored on surfaces which are impermeable for the relevant substances, provided with embankments or other constructions to prevent releases, and otherwise designed so that precipitation does not accumulate.

Chemical products and hazardous waste shall be stored in lockable storage. The collecting volume within each storage area shall, as a minimum, be equal to the volume of the largest container plus 10% of the total volume of the other containers.

Tanks and cisterns shall be equipped with overfill protection.

Chemicals storages shall be clearly marked. Warning signs may need to be set up where hazardous chemicals are stored to avoid accidents. Location of these are settled at the pre-start meeting and shall be communicated to BAS-U.

All containers holding chemicals must be labelled with the product name and manufacturer, as well as relevant risk phrases and hazardous symbols/pictograms.

A material safety data sheet (MSDS) shall be available in English and Swedish. If the user does not understand either English or Swedish, a MSDS shall also be provided in a language that the user understands. The MSDS shall be sorted in an alphabetic order, by the name of the manufacturer, and stored in a clearly marked binder in the storage area. Chemical products shall be handled in accordance with the relevant MSDS.

All chemical products shall be registered in a chemical register, which shall be kept up to date. The register shall be kept up to date by ESS and the BAS-U shall have access to the register.

Absorbents shall be available at the chemical storage areas and close to where work with chemical products is performed.

### **10.2.3      Noise**

If noise-generating work is to be performed, this shall be reported one month before work starts to CF/SEC, who shall coordinate noise calculations for the site to ensure that the conditions in the environmental court judgment can be contained.

### **10.2.4      Water and soil**

The soil, surface water, and worksite's water management system must not be polluted. In the planning process, potential risks of water or ground pollution shall be identified and mitigated. In the event of an incident or accident, immediate action shall be taken to protect the soil and water. Personnel on site shall have knowledge of how to prevent spillage and how to act in the event of an incident or accident.

### **10.2.5      Machines and vehicles**

Machines that will remain overnight on the worksite shall be parked on the worksite's special designated parking- and refuelling area. For some special machines, exceptions may be granted. Machines with an approved exception may be parked overnight with an absorbent mat underneath to prevent spillage. All machines shall be equipped with a spill kit, including an absorbent material.

Refuelling by Stakeholders and/or Stakeholder Contractors shall take place off site.

Machines and vehicles shall be registered in a machine register, which shall be kept up to date by ESS. The machine hours shall be recorded by each Stakeholder and handed over to CF/SEC upon request. CF/SEC shall coordinate the overall site air pollution calculation.

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