

HSWE-PLAN

Project: 1107305 Ocean Space Centre
 Client: Statsbygg
 Construction site: Trondheim, Tyholt and Heggdalen
 Prepared on: 25.3.2021
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0 Introduction

The HSWE plan (Health, safety and working environment plan) is the client's tools for ensuring that the risks associated with the building work carried out under this project are dealt with in a satisfactory manner in accordance with the Norwegian Construction Client Regulations of 2010, revised January 1st, 2021.

An unofficial translation of the Norwegian version of the Regulation and is available here:

www.arbeidstilsynet.no/en/laws-and-regulations/regulations/construction-client-regulations/.

This translated version is for information purposes only. Legal authenticity remains with the Norwegian version. In the event of any inconsistency, the Norwegian version shall prevail.

0.1 Brief information on the project

The Ocean Space Centre project comprises of four sub-projects, named: Fløy A, Fløy B, Fløy C, and Fjordlab (Fløy = Building/Wing). The sub-projects are different in scope and time, which is reflected in the governing progress plan. The construction site for the three first-mentioned sub-projects is at Tyholt in Trondheim, while the construction site for the latter is Heggdalen in Trondheim.

0.2 Naming and Acronyms

For the key-roles in the HSWE-organization of the projects, the commonly used naming and acronyms in the Norwegian language will be used in this document:

- Construction client representative - **BHR**
- Construction client site manager - **BL**
- HSWE coordinator for the engineering/planning - **KP**
- HSWE coordinator for the construction/implementation – **KU**
- Main contractor coordinating the HSWE activities for all sub-contractors and suppliers on the construction site – **Hovedbedrift**
- PRL – The engineering team organized as part of each main contract.
- ANL – The main contractor's lead for the construction site.
- SJA – Safe Job Analysis
- RUH – Report of Adverse Event

Note: The roles of BL, KU, Hovedbedrift, PRL and ANL are distributed to each sub-project. Hence, a suffix -A, -B, -C, or -Fjord is added to indicate the applicable sub-project (see figure 1).

0.3 Preparation, updating and distribution of the HSWE plan

The task of preparing, updating and distributing is allocated as shown in the table below:

Project phase	Document manager	Function
Engineering/planning	Kjersti Skjelle Paulsen	HSWE coordinator for the engineering/ planning (KP)
Construction Fløy A	TBD	HSWE coordinator for the construction/ implementation (KU-A)
Construction Fløy B	TBD	HSWE coordinator for the construction/ implementation (KU-B)
Construction Fløy C	TBD	HSWE coordinator for the construction/ implementation (KU-C)
Construction Fjordlab	TBD	HSWE coordinator for the construction/ implementation (KU-Fjord)

Table 1: Overview of document manager for the plan:

The construction client is responsible for ensuring that the HSWE plan is prepared, updated, and made available to everyone on the construction site.

0.3.1 Attachments to the HSWE plan

The following documents constitute attachments to the HSWE plan. Some documents will be used without amendments. In such cases these are specified under *Comments*. If the business is using its own documents, these shall be reviewed and approved by the HSWE coordinator for the construction/implementation (KU) to ensure that they contain the minimum details required by Statsbygg.

Document	Comments
Checklist for notice boards at construction sites (Statsbygg template 16-01-V6)	Must be used.
Emergency notification plan (Statsbygg template 16-02-M1)	To be used and hung up on notice boards and in other suitable places.
Report form for injuries (Statsbygg template 16-02-M2)	Must be used.

1 Organization

The Ocean Space Centre project comprises of four sub-projects, named: Fløy A, Fløy B, Fløy C, and Fjordlab. The sub-projects are different in scope and time and are headed by project managers (PM) with support of a construction site manager (BL) and a HSWE coordinator for the construction/implementation (KU) of each sub-project. The Construction client representative (BHR) and the HSWE coordinator for the engineering/planning (KP) are centrally organized.

In the construction/implementation phases of each sub-project, the main contractor is coordinating the HSWE activities for all sub-contractors and suppliers on the construction site, acting as the “Hovedbedrift”. The sub-project Fløy B will have two main construction phases: (i) demolition, groundwork, and re-construction of the towing tank, and (ii) concrete, building and installation of main user equipment. Hence, one main contractor will act as “Hovedbedrift” for each of these phases.

The tasks and responsibilities for the roles (marked in red text in figure 1) are outlined in the form NS 8440 B in accordance with the Norwegian Construction Client Regulations.

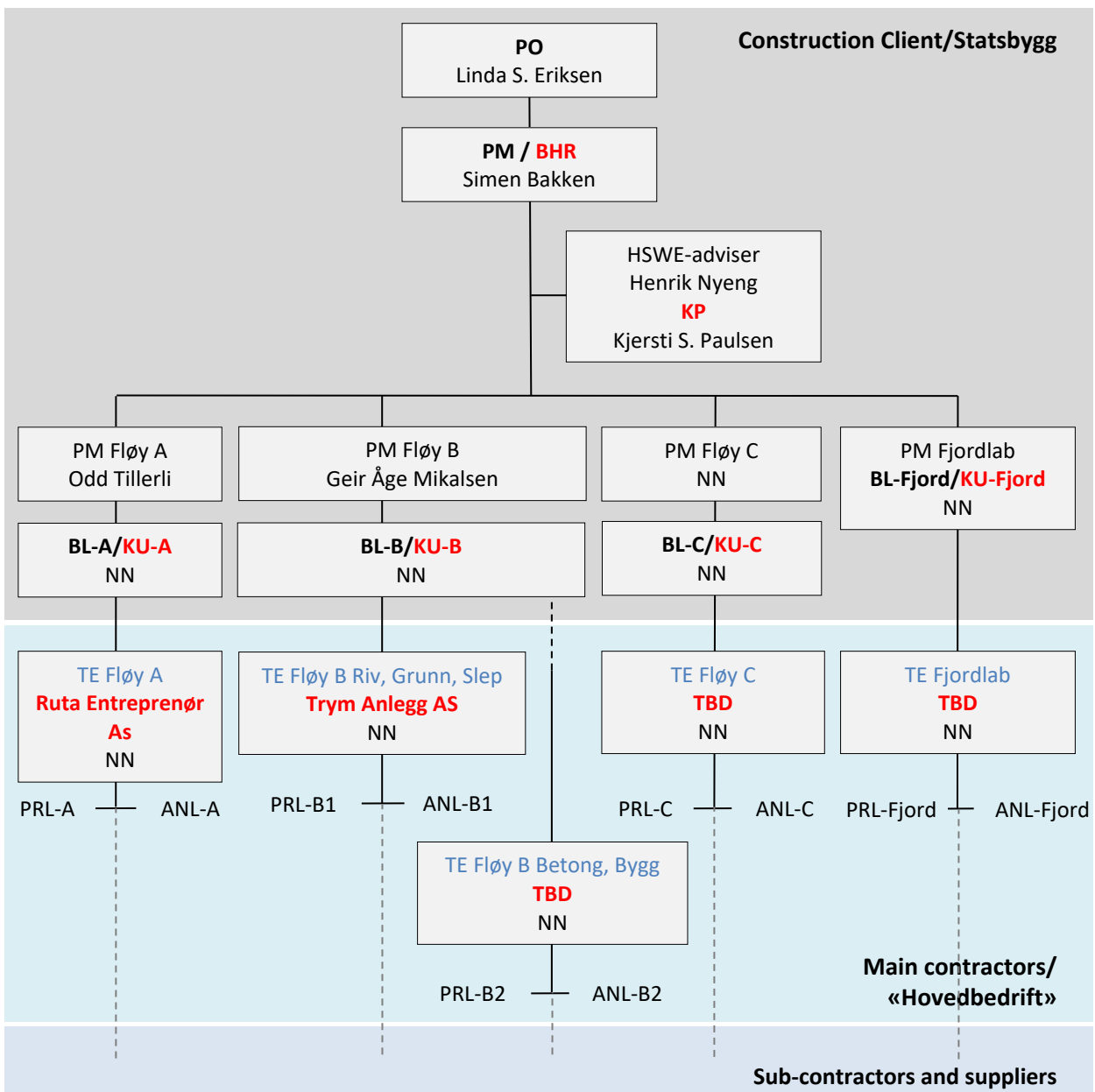


Figure 1 Overall HSWE-organization

2 Progress

2.1 Main progress plan during the construction period (key milestones)

See the attached overall progress plans for the project.

The table below shows key milestones in the project.

No.	Description	Date
1		
2		
3		

Table 2: Overview of document manager for the plan:

2.2 Detailed progress plans (production plans)

Updated progress plans (production plans) showing which activities will take place in different areas over the next 2, 3 or 4 weeks shall be hung on a noticeboard(s) at the construction site and shall be regarded as a part of the HSWE plan. The plans shall clearly state which activities are considered particularly hazardous and which require an SJA prior to start-up.

Progress plans shall be prepared, updated, and hung up by the design and build contractor.

3 Hazardous work

Requirements and specific measures are stipulated below that the Client considers necessary to enable the building works to be carried out safely and securely.

General and specific measures are stipulated.

- The general measures are based on Statsbygg's knowledge of risk factors as a multiple-contract Client.
- The specific measures are based on risk assessments that Statsbygg and design engineers have carried out in connection with planning and designing the project. The executing parties shall notify the Client about risk factors not described in this plan.

The risk factors that cannot be eliminated or reduced to an acceptable level through project design and choice of solutions are described in the table below together with specific measures.

3.1 General measures

3.1.1 Employee obligations

Everyone is obliged to familiarize themselves with the HSWE plan and the safety regulations applicable to the construction site. The requirements stated below are minimum requirements.

Before the work starts, the employees must be made aware of the following duties:

As an employee

- You must register daily in and out on the construction site
- You must contribute to a safe and secure workplace. No job is so urgent that it cannot be done safely – carry out a Safe Job Analysis (SJA) before starting if it is considered necessary.
- You have the right and duty to refuse to perform work that you believe is dangerous
- Do not perform work without approved training when required
- Report unwanted incidents to your manager and take immediate action if necessary
- You must wear the required protective equipment (minimum helmet, safety shoes and visibility clothing)
- You must help to keep walkways, scaffolding, escape routes and work areas tidy

3.1.2 Working at heights

Step ladders and work platforms must be designed in accordance with the fact sheet [«Bra arbeidsmiljøvalg for sikkert arbeid på bukker og trappestiger»](#) from EBA.

The use of ladders and step ladders must be limited to a minimum and only used when it is the most appropriate and safe solution.

As a general rule, personal safety equipment (e.g., fall harness) should only be used where joint safety measures are not possible or have not been fully established.

Step ladders

Use of step ladders is **not** permitted if:

- The use of force is required
- Heavy and large items must be handled (heavy lifting and heavy machinery / equipment)
- Demolition work must be carried out

Working platforms can be used under the following conditions:

- Have railings for work at a platform height above 1.25 m - also below 1.25 m if the work so requires
- Must be steady and without risk of tipping over
- Be CE marked

The type of work platforms that may be relevant in such cases are:

- Platform ladders (level 3 and level 4 in the fact sheet «Bra arbeidsmiljøvalg»).
- Scaffolding / rolling scaffolding (must be marked with owner, status (closed - open))
- Personnel lifts

Exceptions from the fact sheet

In the red zone (according to the building detail sheet for “Clean, dry and tidy construction process”) it is possible to work in a step ladder up to 3.5 meters working height¹ if:

- the work is simple (eg inspection, adjustment, changing light bulb, etc.) AND
- the risk is small

Leaning ladders

Statsbygg requires that leaning ladders should not be used at heights above 3.5 meters. At heights above 3.5 meters, stair towers or other types of secure access must be used.

3.1.3 Language and communication

The contractor shall ensure that:

The work team at all times consists of at least one person who understands and makes themselves understood in Norwegian / Scandinavian / English. In addition, this person must understand, and be understood in a language that all other members of the work crew understand.

Everyone on the construction site must understand the HSWE plan, work descriptions, safety training, HSE routines, safety protocols, safety instructions, SJA, safety datasheets, user instructions for tools and work equipment, warning signs and any other relevant HSWE information. The material must be translated in writing into a language that every employee fully understands.

Legal requirements and guidelines that are otherwise stated on the [Norwegian Labor Inspection Authority's website](#).

Prior to start-up at the construction site, the contractor (Statsbygg's contracting party) shall prepare a project-specific plan for language and communication (language plan) that covers the contractor's own employees, employees of subcontractors and hired-in workers. The plan should make it easy for the commissioning party to ensure that the above-mentioned requirements have been met.

The language plan must contain, as a minimum

- The name of an authorised translator(s)
- Routines for continuous updating of written translations
- Who is proficient in language in the individual work crew.

The language plan must be continuously updated.

¹ Here «working height» is defined as the height from the floor up to the place where work is performed, e.g., the height from the floor up to the hands when someone is replacing a ceiling tile

3.1.4 Other requirements for safety, health and working environment

See Special requirements in the contract for additional requirements set for HSWE according to § 9 of the construction client regulations.

3.2 Specific measures associated with work that could entail danger to life and health

No.	Risk factors	Specific measures	Responsibility
1			
2			
3			
4			

The contractor must make risk assessments of selected solutions within its contract. If they reveal risk factors that cannot be reduced to an acceptable level or eliminated by choosing solutions within the framework of their contract, these conditions must be notified to the client. The coordinator for design shall ensure that the table above is updated with risk factors with associated specific measures that are deemed necessary for the work to be carried out without danger to life and health and with a good working environment.

4 Routines for changing the HSWE plan

This plan shall be continuously updated if changes occur that are important for safety, health and working environment.

Examples of changes that may provide a basis for updating the plan may be:

- Change in the organization.
- Change of description of where and when the various work operations are to be performed (change of progress plan in time or activity content).
- Change of specific measures, either in time or change of the measure itself.
- Identification of new risk factors that require specific measures that have not been described previously.
- Redesign that entails new / changing risk conditions with a need for specific measures and / or a change in the progress plan.

Both the contractor and the designer have a responsibility to inform about conditions that lead to changes in the HSWE plan, and actively contribute to the collaboration to ensure health, safety and working environment throughout the process.

The responsibility for implementing changes to the HSWE plan is defined in the «Client Regulations – division of tasks» that applies to the project.

5 Reporting of adverse events

In order to learn from incidents, it is important that undesirable incidents and conditions are reported. Statsbygg therefore operates with a goal of having a minimum of 8 RUH (Report of Adverse Event) / construction site deviations per 1,000 working hours.

The main company must report number of hours worked, number of skilled work hours, number of apprentice work hours, number of lost time injuries and injuries without absence, as well as number of deviations from safety inspections and number of reports of adverse events. These data must be reported in Statsbygg web-based reporting form by the main company.

Serious adverse events (incidents with personal injury or with the potential for serious personal injury) must be reported to Statsbygg from the main supplier on the form «Reporting damage - potential damage».

In other respects, the individual employer shall have a deviation management system for handling undesirable incidents in accordance with the Internal Control Regulations §5 point 7.

6 Attachments

- Checklist for notice boards at construction sites
- Emergency notification plan
- Report form for injuries
- Fullmakt Skatteetaten engelsk

Checklist for notice boards at construction sites

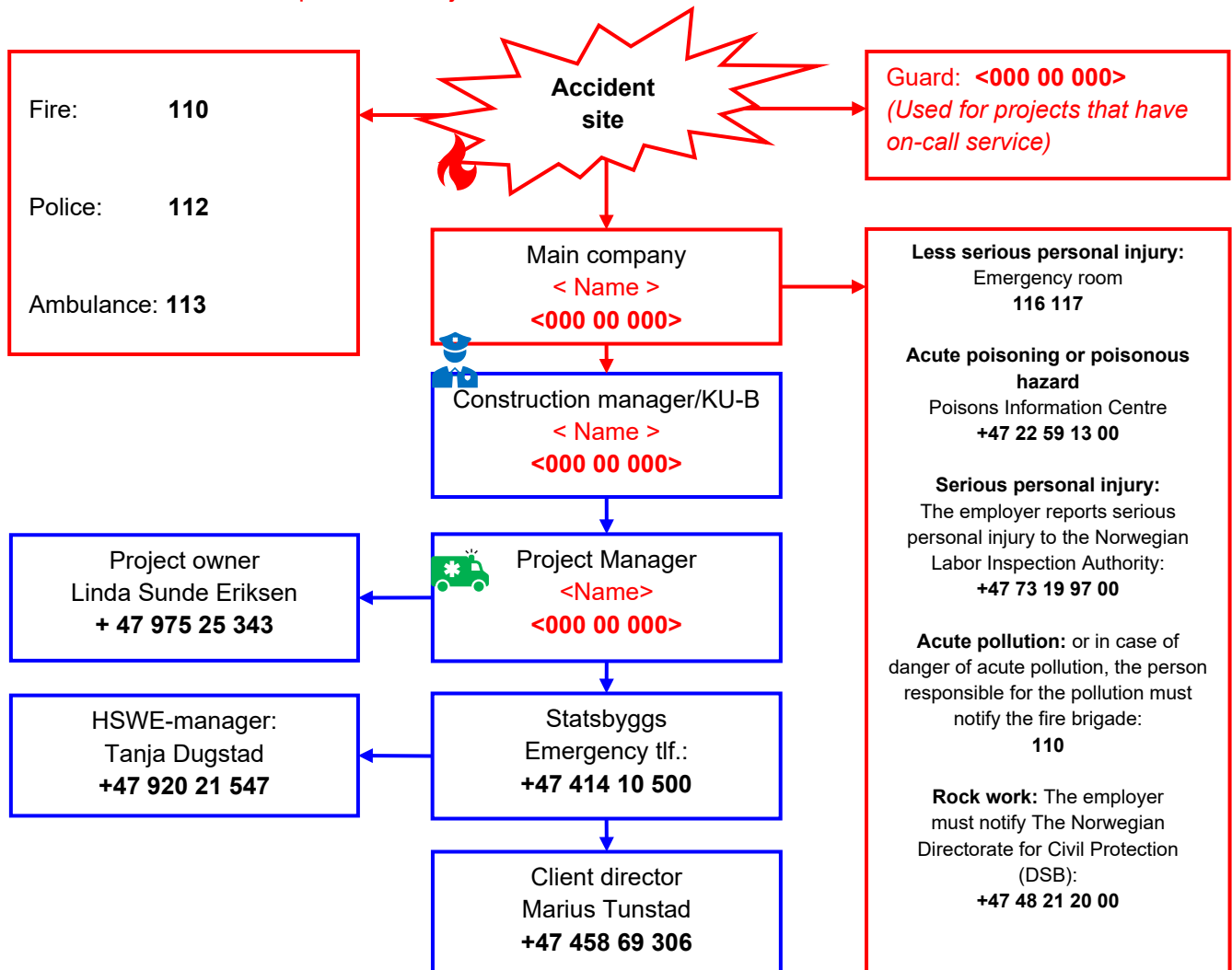
The notice board is an important information channel for information on health, safety, and the working environment (HSWE). The notices are mandatory unless otherwise stated in the comments field.

No.	Subject	Comment
1	Prior notice	The Norwegian Labour Inspection Authority's form 369e
2	HSWE plan	
3	Progress plan Production plans for the next period showing: <ul style="list-style-type: none"> - activities that require SJA - which activities take place at the same time and in which areas 	Production plans prepared by the person who has the task of coordinating progress, see HSWE plan chapter 2.
4	Emergency notification plan	Statsbygg template for Emergency notification plan.
5	Coordination form	The Norwegian Labor Inspection Authority's form 504 is used in projects under 10 MNOK. Statsbygg's template 16-04-M2 is used in projects over 10 MNOK.
6	Rig plan for construction site that contains: <ul style="list-style-type: none"> - access roads, parking - fenced areas - construction barracks - storage areas - placement of waste containers - location of fuel tanks - escape routes and meeting place during evacuation - first aid and emergency equipment - placement of any information boards - reference to chemical management system - etc. 	Rig plan must be adapted to the construction site.
7	Protocol from the main protection round on the construction site	
8	Routines for Clean-Dry-Construction	Mandatory in the Client Department and can be considered in the Real Estate Department
9	Lists of persons employed at the construction site according to BHF §15	Can be hung elsewhere or kept electronically.
10	Information from the main contractor	Adapted to each subproject

Varslingsplan for Ocean Space Centre – Delprosjekt Fløy B

Site address: <Street> <No.>, <Municipality >
 Coordinates: 00,00000° N, 00,00000° E

<Rød tekst skal endres/tilpasses eller fjernes.>



Acute injury:

1. Secure the injury site

To prevent more people from being injured and to stop or limit the harmful effects:

2. Give first aid

- Provide free airways
- Provide cardiopulmonary resuscitation
- Stop major bleeding
- Keep patient warm

3. Call the relevant emergency services and state:

- Who is calling
- What happened
- Where it has happened
- When did it happen
- How to find the place, or a meeting place
- Which telephone number can you be contacted at

4. Receive the emergency services

Meet, inform and guide rescue personnel to the scene.

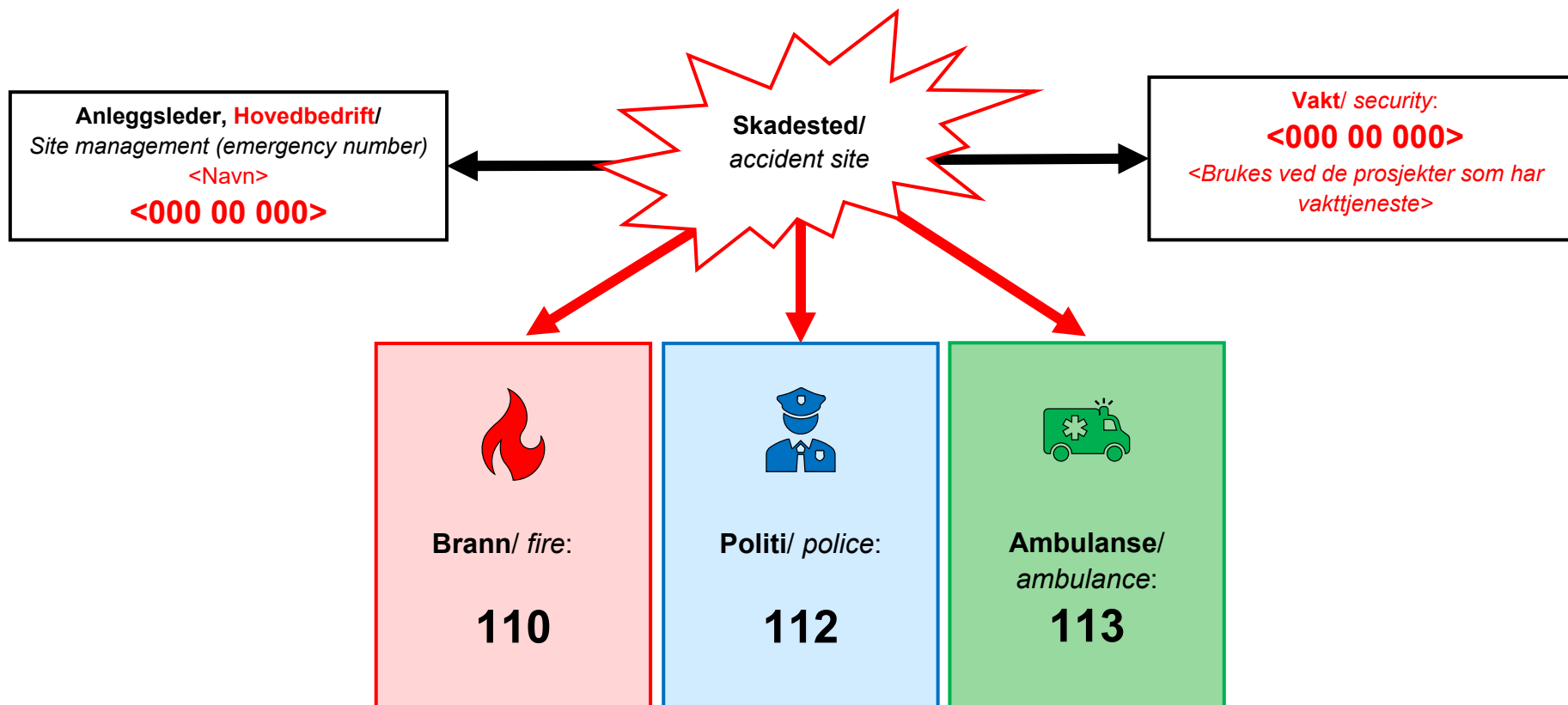
5. Go to the specified **collection point** and wait for further information

Ocean Space Centre – Delprosjekt Fløy B

Varslingsplan/ *In case of serious accident*

<Rød tekst skal endres/tilpasses eller fjernes. Denne forenklete versjonen av varslingsplanen kan henges sentrale steder på byggeplassen, f.eks. ved førstehjelpstasjon/ brannvarslingsanlegg.>

Byggeplassens adresse/ site address: **<Street> <No.>, <Municipality >**
Koordinater: **00,00000° Nord, 00,00000° Øst**
Coordinates: **00,00000° North, 00,00000° East**



REPORTING OF INJURY / POTENTIAL INJURY

This form applies to adverse events that have resulted in absence due to injuries (K3), serious personal injury (K4) or death (K5), or which in slightly different circumstances could have led to serious personal injury (K4) or death (K5).

The form is filled in and sent to Statsbygg by the sub-project manager (Fløy B) and KU-B within 24 hours after the incident has taken place. Notification otherwise follows the notification plan for the project.

The form does not replace the employer's duty to notify the police, the Norwegian Labor Inspection Authority, DSB, NAV, etc. in the event of serious incidents. The form is in addition to reporting routines as described in the HSWE plan for the project and the company's own routines for non-conformance handling.

Definitions

An **adverse event** is an event that can lead to or could lead to personal injury or work-related illness, including accident, dangerous conditions and dangerous action.

Potential consequence is the consequence the event could have had under slightly different circumstances (luck / bad luck).

Project information

Project no.:	1107304-05	Project name:	Ocean Space Centre Delprosjekt Fløy B
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Adverse event

Date of the event:	
Reported by: (Name and company)	
Phone number to contact person:	

Consequence

- K1: No personal injury
- K2: Injury without absence / medical treatment / alternative work
- K3: Absence due to injury / hospital stay
- K4: Serious personal injury, partial / permanent disability
- K5: Death

Potential consequence

- K1: No personal injury
- K2: Medical treatment injury with or without alternative work
- K3: Absence due to injury / hospital stay
- K4: Serious personal injury, partial / permanent disability
- K5: Death

Type of event:

- Falling
- Falling object (Loading, unloading and lifting operations, falling object from ledge)
- Human / machine conflict (Heavy machinery, rollover, caught/trapped by machinery)
- Explosion (Blasting work on construction site, gas incident)
- Construction failure (temporary / permanent constructions)
- Electrical voltage
- Other

Employment relation and discipline for injured person:

<u>Employment relation</u>	<u>Discipline</u>
<input type="checkbox"/> Main supplier <input type="checkbox"/> Subcontractor <input type="checkbox"/> Hired from staffing companies <input type="checkbox"/> Personnel in the client's organization <input type="checkbox"/> 3rd person	<input type="checkbox"/> Unskilled <input type="checkbox"/> Skilled <input type="checkbox"/> Apprentice <input type="checkbox"/> Other

Description

<u>Title / keywords:</u> (Contract no., short description of event)	
<u>Work operation:</u>	
<u>Description of the incident:</u>	
<u>Probable causes:</u>	

If necessary, attach photos / illustrations and other supplementary documentation.

Date:

Sign.:

Principal

Name of supplier/subcontractor	org. nr.
e-mail	

hereby grants

Agent

Name of client	org. nr.
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Power of attorney to collect confidential information concerning:

1. matters concerning tax and duties, limited to the information at any time provided on the form "Information about tax and duties" (form RF-1507 ordered through Altinn)
2. data reported to the Assignment and employee register on form RF-1199 (concerning the assignment) and form RF-1198 (concerning the employees on the assignment)
3. which employees have been reported via the A-melding

The power of attorney cancels the principal's right to confidentiality as stated in the Tax Administration Act, section 3-1, the Tax Payment Act, section 3-2, the Public Administration Act, section 13, the A-opplysning Act, section 7, and the National Register Act, section 9-1. Changes to the acts mentioned above will not cancel the power of attorney.

The power of attorney is valid for 4 years from the date signed and grants an unlimited number of queries. The power of attorney can be withdrawn. A withdrawal must be in writing. Contractual provisions may make exceptions for this.

The power of attorney does not include circumstances that disclose confidential information about parties other than the principal.

The private client who gains access to confidential information will personally be bound to keep the information confidential. Information that **the Agent** has collected on the subcontractor may still be shared with the enterprises at a higher level on the contract chain. Information collected by **the Agent** can also be shared within **its own enterprise or group**.

Access to information from a client in the public sector is regulated by the Freedom of Information Act.

The Norwegian Tax Administration is authorised to communicate confidential information to the Agent via encrypted e-mail. This also applies when only the attachment to the e-mail has been encrypted.

The signee must attach a colour copy of a valid form of identification; either passport, bankcard, driver's license (Nordic countries only) or a national ID-card (citizens of EU/EEA/EFTA countries). The picture, name, date of birth (6 digits) and signature must be clearly legible. **The last 5 digits of the Norwegian national identity number as well as any bank account number can be redacted before the copy is attached.**

Sender's signature

The signee must be authorized to sign on behalf of the enterprise.

Name in CAPITAL LETTERS	
Place / Date	Signature

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