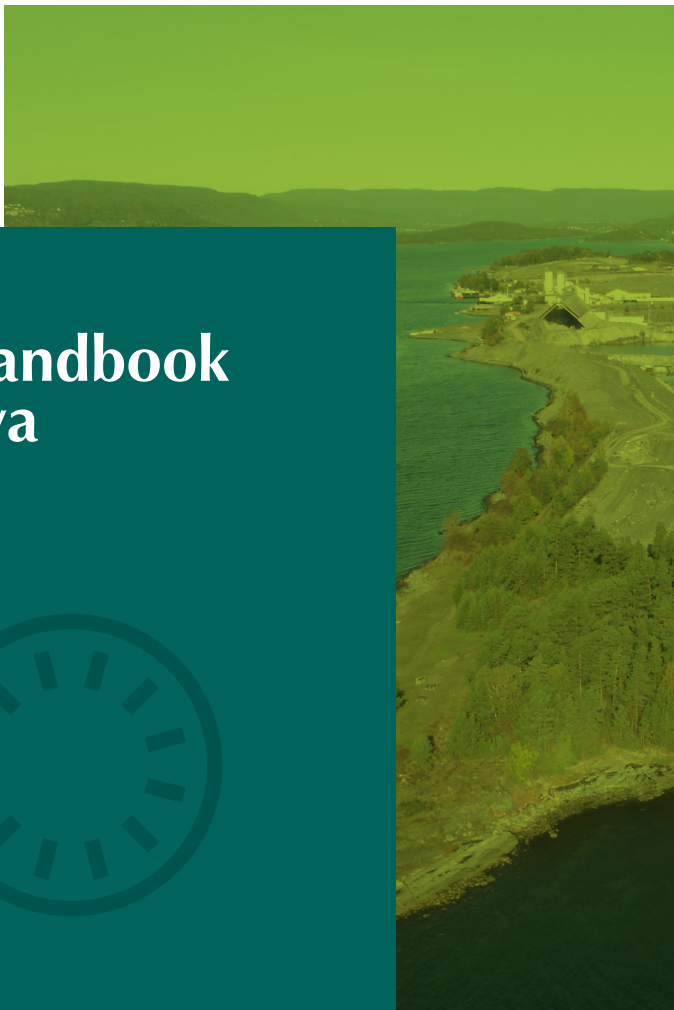


HSE Handbook Langøya





| | |
|--|-------|
| INTRODUCTION | P. 4 |
| HSE MAIN GOALS | P. 6 |
| NOAHS HSE POLICY | P. 8 |
| GENERAL | P. 10 |
| GENERAL INFORMATION | P. 11 |
| FERRY SCHEDULE | P. 12 |
| RISKS TO HEALTH AND HYGIENE | P. 14 |
| ACCESS CONTROL AND RULES FOR CONDUCT | P. 15 |
| WORK PERMITS | P. 16 |
| NEAR ACCIDENTS / HAZARDOUS CONDITIONS | P. 17 |
| VARIOUS INFORMATION | P. 18 |
| VARIOUS INFORMATION | P. 19 |
| PROTECTIVE EQUIPMENT | P. 20 |
| PROTECTIVE EQUIPMENT: PLANT AREA AND LANDFILLS | P. 23 |
| PROTECTIVE EQUIPMENT: WORKSHOP | P. 24 |
| PROTECTIVE EQUIPMENT: LABORATORY | P. 25 |
| PROTECTIVE EQUIPMENT: UNLOADING OF POWDER | P. 26 |
| PROTECTIVE EQUIPMENT: VISITORS | P. 27 |

NOAH's aim, through this handbook, is to provide a general introduction to the rules relating to Health, Safety and Environment (HSE) for those of you going to work on Langøya and for visitors.

The treatment of hazardous waste requires facilities with the highest requirements in respect of health, safety and environment, in terms of both the physical plant and its operation. These requirements take precedence over other requirements. All activities significant in terms of quality, health, the environment and safety are regulated via the quality control system. This ensures that the facilities are safe working places and that neither the actual waste materials or the end products from the treatment processes cause environmental problems, in the short- or long term.

NOAH's goal is to prevent their activities causing harm to people or the environment. The facilities on Langøya have a waste permit issued by the Department of the Environment and are subject to the Major Accident Regulations.

The organization is environmentally-certified according to NS-EN ISO 14001 and NS-EN ISO 9001. The operative quality- and environmental management associated with treatment of waste and for cleansing and discharge are described in NOAH's Quality- and Environmental Handbook.



MAIN GOAL 1:

No fatal accidents, no serious incidents and no injuries with absence.

MAIN GOAL 2:

All waste is transported and treated in a safe and secure manner.

MEAN 1:

Up to date and complete risk analyzes that are understood and used throughout the organization.

MEAN 3:

Reduce the environmental impact of waste transportation.

MEAN 2:

Up to date and complete risk analyzes that are understood and used throughout the organization.

MEAN 4:

Actively work to create safety in the local area.

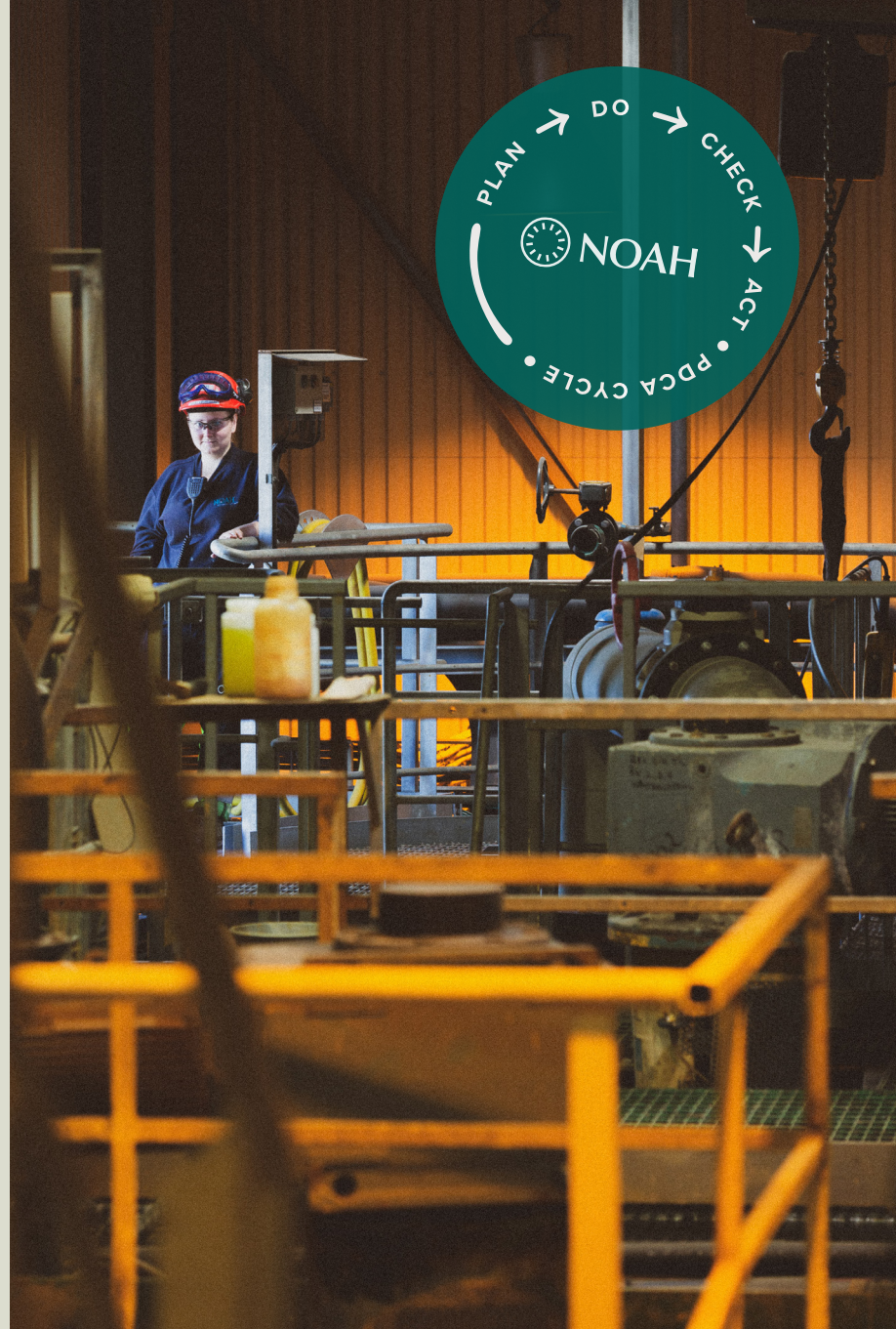


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- We shall prioritize health and safety before all other aspects of our business, and systematically and continuously work to prevent and reduce risk.
- We who are leaders of NOAH shall take a special responsibility to facilitate the achievement of a sound working environment, including good communication, development for the individual, participation and predictability.
- We who work for NOAH are important resources and have the opportunity to influence. We shall all take responsibility to create a common culture who builds on our values, promotes engagement and a good and safe working environment.

PDCA CYCLE

*A near miss not reported
is the next accident.*



The Langøya facility is a reception- treatment and end-disposal plant for hazardous inorganic waste. The plant has defined, well-signed Ex Zones. Langøya terminal has two ISPS-quays. Access here is forbidden when ships are in dock.

The majority of waste received on Langøya is hazardous. All waste received contains heavy metals and in some cases small quantities of organic substances

SAFETY COURSE:

Prior to, or on arrival on Langøya, all personnel shall undergo a safety course prior to commencing work. This takes approximately 10 minutes. A precondition for those assigned to perform work assignments on Langøya is that they have undergone training and instruction. The safety course is valid for 1 year and is based on this handbook. Visitors are exempt from the requirement to take a safety course. Contractors assigned to tasks involving only the administration and workshop buildings, and who are not required to enter the industrial area are also exempt from the requirement to take a safety course. In case of doubt, contact the HSE-manager.



— ALL EMPLOYEES MUST UNDERTAKE THE SAFETY COURSE.

FERRY TO LANGØYA:

Ferry times are agreed with NOAH's contact person. This is described during a work assignment order.

It should be noted that vehicles must have registration plates, be in technically good condition (EU-check) and have signage indicating the company name. In respect of goods transport and other transported by car ferry, this must be booked at latest on the previous day.



CANTEEN:

Dining shall take place in the canteen. Lunch may be purchased from 1130-1200 hrs. Packed lunches can also be eaten in the canteen. Refreshments may be purchased during overtime work, but must be pre-ordered by no later than 13:00 hrs. The current prices are posted in the canteen.

CHANGING ROOMS:

Changing rooms are arranged via NOAH's contact person.

LANGUAGE:

All those performing work on Langøya must be able to make themselves understood in Norwegian or English.

PARKING:

Parking is agreed with NOAH's contact person.

FERRY SCHEDULE

| FROM HOLMESTRAND | FROM LANGØYA | FIXED TIME | COMMENT |
|------------------|--------------|------------|------------------------------|
| 06:45 | | Fixed | |
| | 07:00 | | |
| 07:30 | | Fixed | |
| | 07:45 | | |
| 08:10 | | | |
| | 08:25 | | |
| 08:45 | | | |
| | 09:00 | | |
| 09:25 | | | |
| | 09:40 | | |
| 10:05 | | | |
| | 10:20 | | |
| 10:45 | | Fixed | |
| | 11:35 | Fixed | |
| 11:55 | | | |
| | 12:10 | | |
| 12:35 | | | |
| | 12:45 | | |
| 13:15 | | | |
| | 13:30 | Fixed | |
| 13:55 | | Fixed | Afternoon shift out |
| | 14:15 | | |
| 14:35 | | | |
| | 15:00 | Fixed | |
| 15:45 | | Fixed | Last normal time for Gjemnes |
| | 17:00 | Fixed | Hørte |
| | 18:45 | Fixed | Hørte |
| | 23:36 | Fixed | Hørte |

→ 15 MINUTES CROSSING TIME.
MEET UP WELL IN ADVANCE
OF DEPARTURE.



Protracted exposure to heavy metals can be harmful to health. Generally speaking, all waste shall be treated as corrosive, and it is important to protect the eyes and skin. Safety when working with hazardous waste requires careful handling, correct use of protective equipment and good personal hygiene. Hands should be washed thoroughly before drinking and handrolling cigarettes/smoking. It is particularly important that staff shower at the end of the shift after performing dirty work. Workwear should be changed frequently. Overalls should be worn for especially dirty work in order to protect workwear and the skin.



- All employees must register their name, telephone number and company name daily when arriving on Langøya.
- Personnel shall also record when they depart Langøya, to prevent their being recorded as missing.
- Dirty workwear is not permitted in the canteen, meeting room or lounge on the ferry.
- Personnel are not permitted to work alone on Langøya. Where work needs to be carried out during working hours where NOAH are not present on Langøya, this shall be agreed/cleared in writing in advance with the contact person.
- Signage, labelling and other guidelines must be observed.
- Vehicles must be driven on the right side of the road; normal traffic rules must be complied with, and drivers must watch out for cyclists/pedestrians.

All vehicles max 30 km/hr.

Vehicles must be driven safely according to the conditions, and speed must be reduced in busy areas.

The maximum permitted speed for all vehicles is 30 km/hr.

- Mobile phone use is prohibited while driving in the industrial- or landfill areas.
- Smoking is only permitted in 2 designated areas.
- All staff are responsible for their own safety, and must not expose others to danger.

All work on the processing equipment, electrical installations, PLS, during excavation work, hot work and work in confined spaces/tanks requires a work permit. A valid certificate must be presented for hot work. Individual areas contain EX Zones, and gas-analysis/entry passes may be required. Such analyses must be performed prior to commencing work.

If the work is particularly hazardous a safe-job-analysis must be performed, with participation of those persons who are to perform the work. This must take place before the work permit can be issued.

The work is not considered completed until the workplace is cleaned and the permit returned and signed for by NOAH. If the work is terminated before cleaning is finished, the area shall be cleaned at the supplier's expense.



To prevent accidents, one of the most important activities is the recording of near accidents and hazardous conditions. The condition must be put right in order to prevent actual accidents. We expect you to notify near accidents in which you are involved, and dangerous conditions you observe during your work on Langøya. Write a deviation report yourself or get the contact person to help you do this. Failure to report near accidents and dangerous conditions is unacceptable.

EMERGENCY SITUATIONS ON LANGØYA:

Anyone discovering an emergency situation shall notify this immediately to the control room on the internal number **451** or on **9173 99 27** via an external telephone, prior to initiation of emergency measures.



The emergency response team are summoned by the control setting of an alarm bell in the industrial area and over UHF-radio. Where evacuation is required, or important information needs to be given, this shall be performed using a megaphone on an emergency vehicle. Preparedness response measures on Langøya are described in a separate emergency plan available to all. When the warning alarm sounds in the industrial area, or if notification gives over the UHF radio of an emergency situation (or drill), all staff must muster outside the control room.

Certificates:

All staff must bring a valid certificate with them, which must be sent over to NOAH's contact person prior to commencing work. **Examples include work involving:** Hot work, scaffolding, truck, crane or lift.

Chemicals:

A safety datasheet must always be available in the workplace when using chemicals requiring a hazard label. The protective measures described must always be followed.

Chemicals used by contractors:

A safety datasheet must always accompany chemicals used during work assignments. Employees must be familiar with guidelines associated with use of chemicals and must bring the datasheet so that it can be accessed in the workplace.

Working hours:

Normal working hours on Langøya are 07.00 - 23.30 Monday-Thursday. The control room must be notified of all work taking place after 16:00 hrs. Normal business hours on Friday are 07.00-16.00. Work does not normally take place on weekends. Special approval must be given for work beyond normal hours and in good time before such work is to take place.

**Signage on equipment and buildings:**

Contractors shall bring with them all necessary equipment for performing work assignments, and which must be labelled with the company logo (e.g., gas bottles, tools, falls-prevention equipment, scaffolding etc.). Equipment containers shall be labelled with the company logo and their placement agreed with the contact person for the work assignment. Gas must be secured at the end of the working day. If gas is used within a building, signage must be affixed to the entry doors to the building (important in the event of fire). Containers or buildings in which gas cylinders are stored must be signed with "Gas under pressure".

Waste generated by contractors:

Source sorting of all waste takes place on Langøya. Where containers are required in the workplace, this shall be agreed with the contact person. Costs associated with moving waste to the reception station shall be individually agreed in advance of such assignments.

HSE - contractors:

Contractors shall have an internal control system pursuant as per the Internal control regulation. The Working Environment Act requires that certain types of activity shall have an associated occupational health service. If the activity falls under this category, contractors must present such an agreement on request. The presence of management on site must be agreed at the time of entering into the agreement.

Other conditions:

- Connection of power shall be agreed with the contact person.
- ID-cards are required on "construction sites", pursuant to the building regulations. These must be presented on request.
- Access to buildings must be agreed with the contact person.

Violations:

Violation of the safety regulations provided in this information leaflet, or rules laid down in regulations/laws shall be notified verbally and recorded on the deviation form. If the person(s) concerned continue to violate the regulations, they will be removed from Langøya. In respect of employees of sub-contractors, a copy of the deviation report will be given to the worksite

All goods supplied to contractors shall be labelled:

Company (with contact person)
c/o NOAH office at Transport Office
Weidemannsgate 10
3080 Holmestrand

representative and the company may be asked to leave in the event of serious breaches of the regulations. If NOAH is financially affected as a result of this, the supplier shall compensate for the financial losses.

This chapter describes the requirement for protective equipment and wear in the various areas on Langøya. It also describes the requirement for protective equipment and clothing for specific working tasks.

On Langøya there is a defined requirement for class 2 visibility in respect of workwear.

Requirement for protective equipment by areas:

Use of protective equipment depends on the conditions present in the area in question, what activities are taking place, what contaminants/concentrations are present, and the degree to which the employee is exposed.

In respect of work in special areas, there may be requirements for additional equipment. All requirements for the use of protective equipment are specified in the work permit.

Langøya is divided into various areas, according to the requirement for protective equipment. Shown here is a table with illustrations and descriptions of requirements in the various areas. The areas are marked on the following map shown on the next page.





MINIMUM REQUIREMENT:

- Workwear
- Helmet
- Safety glasses
- Protective footwear

ADDITIONAL REQUIREMENTS:

- Gloves
- Ear protection in noise zones
- Well-fitting safety glasses
 - when unloading powder or when present within the 10-metre zone, or
 - where there is a risk of splashing from waste or chemicals
- Respiratory protection for activities involving exposure to dust/gas
- Activities involving potential exposure to airborne contaminants,
ref. protective equipment required as per HSE-notice/Safety data-sheet.
- Life vest for work on/by quay/pontoon bridge
- Fall-protection equipment when working in tank/closed room/high-work installations etc.



COMMENTS:

- Long trousers and long-sleeved upper body wear shall be worn when moving within the area.
- Visibility class 2: High-visibility elements on jacket or trousers, or reflective vest.
- Walking to/from work from the small-boat harbour is exempt from the requirement for protective equipment.

MINIMUM REQUIREMENT:

- Protective footwear
- Workwear

ADDITIONAL REQUIREMENTS:

- Gloves
- Flame-retardant upper-body wear in hot work
- Ear protection in noise zones
- Protective eyewear when performing work
- Helmet in relation to ongoing activity
- Respiratory protection for activities involving exposure to dust/gas
- Activities involving risk of exposure to airborne contaminants, ref. required protective equipment in HSE-notice/Safety datasheet.



COMMENTS:

- Long trousers and long-sleeved upper body wear shall be worn when moving within the area.
- Flame-retardant work trousers shall be worn.
- Visibility class 2: High-visibility elements on jacket or trousers, or reflective vest when working in the plant area and landfill.

MINIMUM REQUIREMENT:

- Workwear
- Safety glasses
- Well-fitting shoes

ADDITIONAL REQUIREMENTS:

- Gloves
- Activities involving risk of exposure to airborne contaminants, ref. required protective equipment in HSE-notice/Safety datasheet.
- Gloves and protective eyewear need not be worn when using a PC.



COMMENTS:

- Long trousers and long-sleeved upper body wear must be worn at all times.
- Protective eyewear must be worn within the laboratories.
- Exceptions: Protective headwear is not required when taking samples from small packages in the pre-handling building.

MINIMUM REQUIREMENT:

- **Helmet**
- **Well-fitting safety glasses**
- **Protective footwear**
- **Workwear**
- **Gloves**

ADDITIONAL REQUIREMENTS:

- Respiratory with P3 filter when working in a dusty area
- Long trousers and long-sleeved upper body wear must be worn at all times.
- A safety splint is mandatory to be used to secure the discharge of the hose.
- Visibility class 2: High-visibility elements on jacket or trousers, or reflective vest.



MINIMUM REQUIREMENT:

- **Safety helmet with integrated glasses**
- **Reflective vest**
- **Well-fitting shoes**

ADDITIONAL REQUIREMENTS:

- Activities involving risk of exposure to airborne contaminants, ref. required protective equipment in HSE-notice/Safety datasheet.
- Visitors who are driven around in vehicles in the area and who are not permitted to leave the vehicle do not require protective equipment.
- NOAH-employees who receive visitors must ensure their visitors wear the appropriate equipment.
- Visitors may only walk on defined footways.



COMMENTS:

- Long trousers and long-sleeved upper body wear shall be worn when moving within the area.
- Visibility class 2: High-visibility elements on jacket or trousers, or reflective vest.
- Walking to/from work from the small-boat harbour is exempt from the requirement for protective equipment.

FIRE 110

POLICE 112

AMBULANCE 113

EMERGENCY ROOM (municipality) **TLF. 116117**

Allocates minor injuries/accidents to the on-duty doctor in Holmestrand

HSE Handbook Langøya

CONTROL ROOM

Mon. – Thur. 07.00-23.30 Fri. 07.00-15.00

STANDBY DUTY

Outside ordinary working hours.

TLF: 499 / 932 38 590

INDUSTRIAL SAFETY

Manager: André Dale Tlf. 420 / 957 42 784

Fire: Carl Fredrik Bjørlov Tlf. 454 18 806

First Aid: Tone Klufthaugen Tlf. 906 87 631

Order & Security: Ove Lersveen Tlf. 205 / 992 06 966