BOREALIS



# LD-B

# TA2026 Construction site safety plan

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# TA2026

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## 2. Introduction

This is the Construction site safety plan for Borealis Polymers Oy's LD-B plant maintenance and investment turnaround TA2026 prepared in accordance with Government Decree 205/2009 (Government Decree on the safety of construction work 205/2009). In the turnaround, there will be maintenance works and investment projects of different magnitude. There will be also testing of the safety automation and inspections by the authorities.

**HSE principles of Borealis:**

**We believe** that success in business requires excellent performance in health, safety, and environmental matters.

**We continuously** reduce the environmental effects of our operations.

**We deliver** products with a minimal environmental burden.

**We require** HSE competence, knowledge of and compliance with our procedures from all those working at Borealis.

**We learn** both from deviations and from best practices and procedures.

**Healthy working conditions** are the basis of our operations.

Borealis is committed to implementing the guidelines of the **Responsible Care® Global Charter**, the chemical industry 's voluntary initiative (start 1985) which aims for continuous improvement in HSE performance, with open and transparent communication amongst stakeholders.

## 3. Validity of this plan

This safety plan applies to all the parties that work in the TA2026 turnaround site. All pre- or post-turnaround-, shutdown- or start-up related work activities are not turnaround related works or activities. All the previously mentioned activities are

related to the normal operation works. This safety document is binding on all parties to the TA2026 turnaround.

## 4. Definitions

**HSE&E**: Health, Safety, Environment &Energy

**KPI:** Key performance Indicator

**SPA**: Safety plan of actions

**TRA**: Task risk assessment

**Take 2:** A tool/ way of work to mitigate last minute risks

**Borealis**: Borealis Polymers Oy

**RAP:** Risk Assesst Permit

**SIMOPS**: Simultaneous operations

**SYNERGI:** Borealis system for reporting incidents and observations

## 5. Construction site organization

Borealis is the building project owner and main executor in the TA2026. The persons responsible for Occupational Health co-operation in the construction site are:

- Labour Safety manager: Sanna Ronkainen
- Labour protection representative for white-collar workers: Marko Klemola
- Labour protection representative for blue-collar workers: Petri Taanila

Person responsible for maintaining the information in the safety document is Safety coordinator.

## 6. HSE- policy, goals and strategy


Turnaround HSE-objectives:

| TURNAROUND HSE-GOALS |
| --- |
| • Zero accidents |
| • Zero leaks and fires |
| • Zero environmental incidents |
| • Good housekeeping |
| • Active safety observation and reporting |
| • High work quality |

To reach these goals everyone in the turnaround is to have a positive safety attitude. An open and active cooperation is required from every party. Everyone must follow the common safety instructions and know the basics of safe working methods.

The most essential operating methods related to the achievement of safety goals are through risk assessment and planning in advance, good orientation to the work and working conditions, reporting of incidents and near misses, HSE tours, engagement tours, comprehensive safety training and implementation of corrective actions of safety reports.
At Borealis, high-risk work are assessed, according to BOY-2015. During turnaround, risk assessments of the work process are carried out for certain tasks. The work permit practice forms a part of comprehensive risk assessment. The Take 2 method is used to manage last-minute risks at the work site and must always be documented in writing before work begins. When working conditions change, the level of risk assessment must be re-evaluated.

Safety reports (incidents, near misses and dangerous conditions e.g. environmental issues, leaks) are processed at Borealis in the Synergi system. Safety report forms are available for service providers in locations where work permits are issued. Service providers give the safety reports to their Borealis contact in charge who enters the report in the Synergi system. Safety reports are processed immediately, and the progress of processing is monitored in the Synergi system.

HSE-tours are held minimum once a week in the TA-construction site. HSE tours are scheduled in advance. They also act as the weekly maintenance inspections according to Decree 205/2009. Contractor representative must participate to these tours.

Engagement tours are a method used for identifying risky work methods and agreeing on corrective courses of action. Borealis employees and partners are trained in making engagement tours.

## 6.1 Construction site tidiness and waste management

Good housekeeping in the turnaround area is an important part of safety. Tidiness must be maintained continuously at the work sites. Contractors are responsible for their own work areas housekeeping and waste management. After the works are completed the work sites will be accepted only in the same conditions as they were when handed over to the contractor. Borealis reserves the right to interrupt work if the tidiness and order of the area cause risk to the safe performance of work. Unnecessary and discarded materials are to be sort and removed daily. If the work areas are left uncleaned by contractor Borealis reserves the right to clean and charge the contractor for the cleaning costs. The cleanliness of the areas is assessed during weekly HSE- tours.

## 6.2 Dust control in TA-construction site

Site dust control must pay attention and dust hazards must be minimized by effective dust control. Dusty work steps and areas must be identified, and risks must assess and effective dust control measures to applied. Dust hazards at work sites and the necessary measures must assess in connection with TRA and work permit preparations.

## 7. Life-saving rules and HSE- requirements

In Borealis we have a rule that must obey without a compromise: **"If we can`t do it safely, we don`t do it at all".** Healthy and safe working environment does not come by chance: we work hard every day to achieve it. Everyone in the turnaround site must comply with Borealis Life Saving Rules.


Borealis will deliver the general HSE requirements of Borealis Polymers Oy (BOY-instructions) to the contractor as an attachment with this safety document.

## 8. HSE- communication

### 8.1 Language

The principal language of the TA2026 is Finnish. If necessary, the most important HSE documents (this safety plan, TRAs and safety requirements) and TA training is provided in English. The service providers must prepare their own HSE plans and all the other necessary HSE documentation in English or in Finnish and in the native language of their employees. Borealis trains the service providers on its HSE&Q requirements in Finnish and, if necessary, in English. Contractor must procure

interpreting services if necessary. During the turnaround contractor must always have a person on the site who is able to interpret from Finnish or English into the native language of the employees. Borealis will make spot checks to verify that the contractor has sufficient language skills.

### 8.2 Information and communication

Communication during the turnaround will be handled through the following channels:

- Daily disciplines meetings with contractors
- Daily SIMOPS meetings
- Construction site information board
- Electronic information boards in the area
- Turnaround website (training, site maps, safety plans)
- Separate weekly updates (any accidents and hazardous situations that may have occurred on site, as well as other current HSE information)

In exceptional situations, communications are taken care of according to the guidelines BOY-5005.
All the material will also be available on the TA-home page.

## 9. Training and orientation

### 9.1 Basic requirements

All turnaround employees must have the professional skills required for the job and must be able to demonstrate their competence adequately before starting work. The developer's representative has the right to inspect the employees' professional certificates. The contractors are responsible for training their employees on the safe use of equipment under all circumstances. Contractors are responsible for

familiarizing their employees with the safety requirements they have received from Borealis.

Everyone working at the construction site including subcontractors must have a thorough orientation to their work and working conditions arranged by their employer. The main implementer will take care that every contractor that has a contract with Borealis working on the construction site has the necessary information of safe working on the site and that they know the hazards and risks and the action needed to control them.

## 9.2 General training requirements

All employees must participate in training required by Borealis Polymers Oy. During the turnaround, all employees must have a valid pass to Kilpilahti with photo ID and keep this visible while on the site. Kilpilahti area training, TA-training and TA-quality are mandatory for everyone working at the TA-construction site. Contractors will be provided with a separate training guide to help them familiarize themselves with the training required at the TA-construction site.

Employees must have an Occupational safety card. The following international passes are accepted as equivalent to the Finnish occupational safety card:

- SCC Basic Elements of Safety (Netherlands)
- SSG Entre (Sweden) FAS Safe Pass (Ireland) ECITB/CCNSG
- Safety Passport Scheme (UK) SPA Safe Pass (UK)
- CSCS Construction Skills Certification Scheme (UK)
- OSHA Outreach Training Program (USA)

People issuing work permits or supervising hot work must have a hot work permit.

Everyone working in the turnaround must take part in the turnaround training. Turnaround training will be offered primarily in e-learning mode. When having passed the training person gets a turnaround sticker, which must put on the helmet. TA training is available in Finnish and English.

Work permit related training will be arranged to the permit acceptors to get access to RAP work permit system. Work permit training is available in L2O-system.

### 9.3 Turnaround-specific requirements

Borealis arranges an orientation to safety issues for all those who work on the site. Orientation is organised before the turnaround, and it is available primarily in e learning. The contractor is responsible for ensuring that all participants in the turnaround work do the orientation training and other necessary trainings well in advance. Elearning are available in Kilpilahti L2O-system.

Turnaround training includes:

- Borealis Life Saving Rules
- Construction site organization
- General safety requirements
- Traffic rules and arrangements in the area
- Personal protective equipment (PPE) required on the site
- Construction site dangers and harm factors
- Alarms, evacuation procedures, meeting places
- Hazards of nitrogen and other chemicals used at the site
- Access control requirements and ID-card requirements
- Work permit procedures

## 10. Meetings and inspections

### 10.1 Contractor pre-qualification and evaluation

The purpose of the pre-selection process is to assess the service provider's general competence and suitability to work in accordance with Borealis' HSE requirements. The pre-selection of service providers will be done before sending the call for tenders. Pre-selection can either be a separate step before the call for tenders, or it can be part of the call for tender’s process. A service provider who has previously

worked for Borealis or its owners may be accepted to offer without pre-selection only if:

• Work done in the past is comparable to work that is now open for competition

• Work done in the past has been done acceptably less than three years ago

• The ownership, management and work management of the service provider have remained unchanged

• Within three years, the service provider has been assessed with the Borealis contractor audit method, and the level has been as defined in this guide

Other service providers must be evaluated to ensure their ability to perform the work in accordance with Borealis HSE standards. The assessment is performed in accordance with the Borealis contractor assessment system.

## 10.2 Kick off meetings

Before the turnaround, Borealis will arrange kick-off meetings with contractors. Construction site's safety plan is discussed with special focus on the implementing organisation of the site, responsibilities and requirements as well as hazards and risks of the construction site. The health, safety, environment and quality requirements of the site are discussed at the meeting, and contractors are required to specify their operating models used for ensuring that the requirements are known to contractors' employees working at the site.

## 10.3 Construction site meetings

During the turnaround there will several meetings on a daily/ weekly basis. Meeting schedules will be updated before turnaround.

## 10.4 Contractors HSE-meetings

Contractors must arrange at least one a week a safety meeting for their employees to discuss current construction site safety-related matters, reported incidents and near misses as well as accidents and the level of site. Safety meetings are reported to Borealis in the force notice. Borealis will provide prepared toolbox-talk materials for contractors. These materials are available in TA-home page. If necessary, contractors can also be assigned mandatory safety training during the turnaround.

### 10.5 Weekly maintenance inspections (HSE tours)

During the turnaround, an HSE tour is organised at least once a week. This is a site maintenance inspection, and the issues to inspect include, amongst other things, the general organisation, fall protection, lighting, electrification, cranes, lifting platforms, lifting accessories, scaffolding, access routes and excavations, harmonisation of tasks and other matters of importance to safety. Schedule for the HSE-tours can be found from the site info-board, and separate invitations will be sent to the required participants. The contractor's representative must participate in the weekly tours.

### 10.6 Safety inspections

Borealis makes both scheduled and unannounced inspections on the site. If the authorities want to make special inspections on the site or participate in the site inspections, the safety coordinator ensures that all parties are informed who need to be notified of an inspection of the authorities and the results thereof.

## 11. Arriving to Kilpilahti and to the construction site

During the turnaround, traffic control is increased in the area. Driving speeds will be monitored and there will be also additional drug and alcohol testing in the turnaround area. Arriving to Kilpilahti and turnaround area is marked with clear visual BOREALIS TA-signs. Use only the designated and marked routes to ensure safe moving in the area.

### 11.1 Access permit and –control

A person who has completed the personal ID training is given a personal ID card that must be always carried. The personal ID card also functions as an access permit to the area. In the construction site the ID card must always be visible. Visitors must have a visitor card and a host approved by TA. All people entering the turnaround area must register their access at the gates of the turnaround area. Both entrance to the area and exit from it must be registered. Turnaround site in a restricted

construction site and working there requires TA-training. Certificate for the training is a sticker on a helmet:


## 12. HSE-reporting and investigation of incidents

### 12.1 Incidents (accidents, fires, leaks)

All incidents, even minor ones, have to report immediately to supervisor/issuer of work permit and own supervisor. All cases of fire and leaks must be reported immediately. If a dangerous situation, accident, fire, or leak has occurred at the work site, work cannot continue until the turnaround work permit organization has inspected the site and given the permission to continue work.

### 12.2 Incident reports (near misses and dangerous conditions)

An incident report must be made for all near misses and dangerous conditions. Contractors can make reports straight to Borealis Synergi system via separate link (link can be found from TA-homepages and from TA-site info board). Contractor can also make the report verbally to Borealis supervisor or work permit office.

### 12.3 Investigation of incidents

Borealis investigates all incidents/accidents that occur during the turnaround to find out their root causes and to determine and implement corrective measures to prevent such incidents in the future. Borealis' safety coordinator is responsible for arranging the investigation. Borealis requires the participation of the contractor and, if necessary, EPCM-partner in the investigation. In case of personal injuries, the injured person must be present at the investigation, and in the case of other accidents, the person witnessing the accident, the contractor's supervision of work

and the person in charge of HSE must participate. In case of accidents that must be reported to the authorities, the safety coordinator coordinates investigational cooperation with the authorities. The investigation materials related to accidents are supplied to the labour safety manager if she/he does not participate in the investigation.

## 12.4 Contractors` HSE-plan

Contractors participating in TA must prepare an HSEQ-plan and store it in the Sedatus system under the contractor's own profile for approval 3 months before the start of the turnaround. If the contractor has foreign employees, the plan must be written in the employees' native language or in a language that all persons working at the turnaround site understand. The plan must include the identified risks and the means to minimize them. The HSE plan must contain a description of the contractors' HSE organization.

**The HSE-plan should include following items:**

1. Project general information, description of the project to which the HSE plan applies.

2. Description of the contractor's HSE organization and contact/responsible persons at the site.

3. The contractor's HSE principles and HSE goals, as well as how the set goals are achieved.

4. Description of the training of the contractor's employees in order to achieve safety goals (e.g. initial training, work safety card, fire work card, personal lift training, documentation of safety training).

5. How safety is a part of daily work (e.g. safety plan-practice SPA for the work task, safety discussions, documentation of documents).

6. Safety cooperation at the construction site (e.g. meetings, safety inspections, participation).

7. Coordination of works and consideration of other contractors.

8. Assessment of the risks and hazards affecting the work performed in the contractor's project, as well as related risk management measures:

- Construction work in an ongoing facility (risk of fire/explosion, consideration of Ex areas)
- Fire works
- Work inside the equipment (working in confined spaces)
- Lifting works
- Personnel lifts
- Working at different levels above the ground
- Scaffolding work
- Work with a risk of falling
- Use of chemicals
- Demolition
- Excavation, piling works
- Cold/hot conditions
- Mechanical risks (e.g. those caused by the use of work tools)
- Work with a risk of electrical accidents
- Jobs with a risk of drowning
- Asbestos work and work steps that cause dust
- Large formwork and element works
- Blasting works
- Construction work done while diving

(Furthermore, the tasks that require a separate implementation / safety planning will be assessed with the main implementer)

9. PPE policy

10. Condition monitoring and inspection procedure of used work tools and machines, documentation of documents

11. Cleanliness and order as part of occupational safety

12. Waste management

13. First aid readiness (first aid equipment and trained personnel)

14. Operation in an emergency

It is important that the issues presented in the contractor's HSE plan are concretely reflected in the daily work and commitment to achieve the common construction site safety goals.

## 12.5 Contractors HSE-supervisors

The contractor must have a full-time HSE-supervisor when the number of the contractor's personnel is 25 people or more. The HSE supervisor must proactively ensure that the set HSE goals are achieved and must be available at the site full-time. The HSE-supervisor, together with the contractor's management, ensures that the Borealis HSE guidelines and plans are followed and:

- Maintains active contact with the contractor's management and Borealis turnaround organization
- Maintains the contractor's HSE plans and necessary documentation
- Guides own company's personnel in HSE matters
- Participate in the weekly HSE rounds of the construction site
- Monitors and ensures that the work to be performed is done safely and in compliance with Borealis' HSEQ guidelines, and reports any deviations
- Ensures that the contractor's personnel have completed the necessary training and that the necessary qualifications of the contractor's personnel are valid
- Assists management in SPA preparation
- Regularly organizes the contractor's HSE meetings (i.e. toolbox) and informs all parties about them
- Takes care of HSEQ reporting to the safety coordinator and main executor
- Collect and document the contractor's safety reports and further report them to the safety coordinator and main executor
- Ensures that HSE information reaches all company employees

### 12.6 Turnaround weekly- and monthly reporting

The safety coordinator is responsible for a weekly summary of accidents and incident reports, safety meetings and the inspections carried out. Engineering partner is responsible for delivering the reports of contractors falling under its responsibility to the safety coordinator.

### 12.7 Contractors turnaround report

Contractors shall deliver turnaround report to the safety coordinator or, if so agreed, to NES, containing the following information:

- Hours worked
- Number of accidents (first aid cases, 0 day and accidents leading to alternative work, accidents leading to absence)
- Number of other accidents (ignitions, leaks)
- Number of incident reports
- Subjects and times of safety meetings
- Other relevant health, safety and environment issues

The contractor shall use the Borealis weekly reporting form.

### 12.8 Assigning personnel to the construction site

The contractor must register all persons working on the site in the Sedatus system under TA26 LDB site. If a person cannot be found from the site's personnel list, they may be removed from the site until their right to work has been verified. The contractor must also ensure that any subcontractors they use are added to the Sedatus system.

## 13. Health care and first aid

Contractors must arrange occupational health care and accident insurance for their employees as required by law. The contractor is responsible for ensuring that subcontractors have occupational health care and accident insurance. The

contractor's occupational health care must have an operating model that ensures the health suitability of employees for the specified work in the Borealis area. In the event of accidents involving chemical exposure, the contractor and subcontractors may use the occupational health care services of Borealis Polymers Oy (Terveystalo). Contractors are responsible for their specific first aid arrangements. The contractors must keep first aid supplies in their site office, and adequate number of first aid skilled people present at the site. First aid kits are also available in the turnaround site in marked places.

## 14. Hazards and risks at the construction site

There are several works that include special risks to safety of employees. The equipment's of the process units are emptied and nitrified or steamed to make them free of hydrocarbon, for the works in turnaround. Some of the equipment's and vessels will nevertheless stay unemptied and filled with hydrocarbon and these areas will be clearly separated with markings at the site. Work sites are prepared so that they are in a safe status before work permits are issued and, in the work, permit the specific safety action needed to work safe are described.
Specific risks related to turnaround are:

- Adjacent production units and plants in operation (LD-C unit, PP- and Boremix plants)
- Higher than normal number of people in the area
- Traffic arrangement that differs from normal situation and the amount of traffic
- Demolishing work (cramped working conditions, lifting and transporting, the effect of the work to others working in the area, ignition risk etc.)
- Radiation used in inspections
- Exhaustion related to work overload (the necessary resting period must be ensured)
- Working in heights – risk of falling (temporary removal of gratings, opened manholes, dropped objects etc.)

- Risk of exposure to poisonous or corrosive chemicals or dust, risk of inflammable or pyrophoric chemicals
- Inert suffocating gases like nitrogen and different shielding gases
- Potential exposure to noise

For high-risk work, TRA is mandatory. In addition to Borealis HSEQ-instructions, operating instructions agreed in the work permit and TRA, the contractor must be prepared for the usual construction site and construction hazards and consider them when planning and implementing the work. The contractor must make a SPA for all work and submit it when the work permit is issued.

## 15. Risk assessment

Risk assessment at construction sites is divided into the following categories depending on the planning and implementation phase of the project:

- Construction site general risk assessment
- Identification of areas with a risk of falling (fall protection plan)
- Work permit policy
- Work plans for specific types of work, including risk assessments
- TRA for high-risk work
- Contractors' risk assessments for their own work packages (may be attached to the HSE plan, for example)
- TTS, contractors perform for all their own work (task-specific)
- TAKE2, always at the work site before starting work
- Daily SIMOPS meetings

## 15.1 Task risk assessment (TRA)

Task Risk Assessments aim at finding the safest and most systematic way of doing certain high-risk tasks. Borealis will schedule the TRA meetings and invite necessary people. A TRA can be made for different tasks depending on the need.

### 14.1.1 TRA per equipment

A Task Risk Assessment is made per equipment area when functional equipment assemblies can be assessed.

### 15.1.2 TRA per contractor

When necessary, a TRA can be made for each contractor specifically.

### 15.1.3 Very high-risk tasks

A TRA is drawn up separately for tasks of very high-risk such as those related to a specific device, for example. Very high-risk tasks include those listed in the attached BOY-2015 guidelines and other examples listed here:

- Furnace, column, tank, and reactor work (work inside these)
- Working in a nitrogen atmosphere (reactor/tank work)
- So-called hot tap work (connection to be made to a line under pressure)
- Repair/sealing of a leak with extensive effects
- Replacement of cleaning/dryer/catalyst masses
- Hot work including the use of open fire/sparking in the hydrocarbon area (does not apply when the facility is free of hydrocarbons)
- Updating safety logics
- Working under demanding or special conditions (such as the tip of the flare)
- High-pressure water work over 250 bar (risk assessment according to BOY.31.70.103.F)
- Excavation work
- Deviations from normal methods of segregation of equipment/process parts
- Opening objects containing pyrophoric (self-igniting) substances

- Work on the extruder's hot oil unit
- Heavy lifting or lifting with two cranes
- Work at high altitudes
- Work with risk of exposure to dangerous chemicals

## 15.2 Participants and approval of task risk assessment

The main contractor appoints a person in charge of TRAs. Participants in the risk assessment are the maintenance supervisor and, if necessary, the person issuing work permits for the area to which the TRA applies, the contractor's supervision of work and the person in charge of HSE matters appointed by the contractor. The contractor's supervision of work must ensure that the TRA is explained clearly to those performing the work. It is recommended that the contractor deliver the TRA signed by its employees to the supervisor appointed by Borealis.

## 15.3 Workplace checklist

Workplace checklist is filled to detect any flaws or deficiencies in the work location before starting the work. The inspection therefore serves to ensure that the work location is safe for those working there as well as to other people, the environment and equipment in the location.

A separate written Workplace checklist is always done in the case of very high-risk work tasks. A written inspection may also be carried out for work without a very high risk if the person issuing the work permit considers it necessary. At the very least, a representative of the location (the person issuing the work permit or a person authorised by them, such as an operator) as well as representatives of the party carrying out the work shall participate in the inspection of the work location. It is recommended that the supervisor of work also participate in the inspection whenever possible. The persons carrying out the inspection shall sign the form.

A written workplace checklist is done using an inspection form. The inspection is done at the work location before the work permit enters into force.

### 15.4 SPA and TAKE2

In addition to risk assessments, contractors must always prepare a SPA and Take2 for all work to ensure safe working practices. In the Safety Plan of Action (SPA), the contractor describes the risks associated with the work, the working methods and tools to be used, and the measures to be taken to ensure that the work is carried out safely. The SPA is drawn up together with the employees. The SPA must be submitted when applying for a work permit. Take2, the "think before you act" principle, serves as a last-minute risk assessment at the work site. Take2 must always be completed in writing at the work site by the employees before the work begins.

### 15.5 SIMOPS, simultaneous operations

The principle of SIMOPS is to manage the different tasks of the construction site and their overlaps. The main principle is the prevention of dangers and harms, and the coordination of works to ensure their smoothness and safety. During turnaround, SIMOPS works as a daily tool for planning the timing, duration and location of work and work phases. With the help of SIMOPS, the work performed in the area are visualized, so possible overlaps can be detected, and a visual situational picture of the area can be obtained. The SIMOPS meeting is held daily during the turnaround.

## 16. Environment

**Environmental aspects during turnaround**

Borealis is committed to decrease any harmful environmental impacts. We are committed to act according to ISO 14001 requirements. All contractors are required to comply with these rules and requirements.

During turnarounds, essential environmental requirements include the sorting of waste, the management of equipment wash water and chemicals.

**Leakage control**

In case of a leak, contain the leakage and immediately inform the plant staff. Absorptive materials and drain cover mats are available at the plant for use in case

of leakage. During the turnaround, it is prohibited to release any substances into Borealis sewers without a specific permission from the plant staff.

Water containing chemicals, such as water used for the washing of equipment or oil, may not be released onto the ground. All chemical and oil spills must be contained without delay and may not be allowed into the sewer.

### 16.1 Waste plan

Borealis prepares a plan for the sorting and disposal of waste created during the turnaround. The contractor is responsible for ensuring that their employees collect the waste generated by their operations and sort it using the containers provided by Borealis. Specific arrangements are made for very high-risk waste or other waste requiring special actions. Should the contractor fail to clean the work location, Borealis is entitled to invoice the contractor for the cleaning costs. If you don't know where to put the waste generated, ask the Borealis staff for help.

## 17. Work permits

All work performed by the contractor during turnaround is subject to a work permit. Work permits are issued by persons appointed by Borealis. The contractor is responsible for ensuring that all employees understand the terms and conditions of the work permit and perform their work in accordance with the rules and instructions. The work permit must be reviewed with all persons involved in the work before work begins (toolbox meeting), and the workers must sign the work permit.

## 18. Safety plan of action (SPA)

Safety Plan of Action is task-related task plan document to ensure appropriate HSE preparations in each task before it is commenced. The purpose of the SPA is to ensure that the employees are trained on the risks and safety measures related to the task to be started and that a common safety plan is prepared for the task by all those participating the work. The contractor's supervision of work discusses the task at hand, the TRA and the work place check list with the employees and reviews the terms of the work permit after receiving it. The risks of one task (or group of tasks)

are recorded in one form. The related safety plans are prepared and the resources ensuring safety and the safety measures are agreed.

The tasks must be reviewed at a sufficiently meaningful level (tasks, risks and other safety measures must form a reasonable package for which a detailed plan can be made). The supervisor and the employees sign the form.

When a new employee comes to the site, the tasks are discussed and the conditions of work are reviewed with them (with an experienced employee on the site, for example). After the orientation, the SPA is reviewed (along with the preceding TRAs, etc.) and signed before the new employee can start working independently.

If the task changes, a completely new plan must be made. In case of minor changes, the plan must be revised.

The filled-in safety plan of action must be available for viewing on the site for the duration of the work.

## 19. Emergencies

Operating principles in emergencies and area assembly points are presented in turnaround safety training and in construction site info board. The emergency number for the Kilpilahti rescue service is 010 4582222.

## 20. Moving in the area

Everyone entering the construction site must register their entry at the gates of the turnaround area. Both entry to and exit from the area must be registered with the access control devices at the gates to maintain a list of people working on the construction site.

Vehicle traffic in the factory and process areas is subject to permission, and unnecessary traffic must be avoided during turnaround. The use of bicycles in the process area (ISBL area) is prohibited. Vehicle traffic in the area should, in principle, only be used for transporting work machines, goods, and cargo.

## 21. Guarding

According to a degree (1104/2013) issued pursuant to the Police Act (872/2011), it is forbidden to access the Kilpilahti industrial area without authorization, to stay there, or to start an open fire. During the turnaround security, company will make random vehicle checks. Contractors are requested to clearly mark their tools, machinery, and equipment with their company name.

## 22. Drug and alcohol policy

Consuming alcohol or any other intoxicants and turning up under their influence in the turnaround area is forbidden. Intoxicated people are a danger to themselves and their co-workers. This is why we apply zero tolerance to intoxicants and during the turnaround, Borealis may conduct random alcohol and drug tests.

### 22.1 Fire and smoking

Bringing matches or lighters of any kind into the turnaround area is forbidden. Using lighters and handling any kind of device capable of igniting fire is forbidden in the turnaround area without written permit. Smoking is allowed in designated smoking areas only. In addition, bringing any kind of firearms or explosives into the processing and plant area is forbidden without permission.

### 22.2 Photography and using mobile phone

Taking photographs is strictly prohibited in the fenced-in processing and plant area without a permit and a separate training. A permit is granted by the plant manager or persons authorized by the manager. Publishing the photographic material is allowed only by written permit of the aforementioned persons. Using non-ex-protected mobile phones in the turnaround area is allowed only during a strictly specified period. Check the info from the turnaround area info-boards before using your phone.

# 23. Personal protective equipment (PPE)

## 23.1 Basic protective equipment required during turnaround

- An industrial helmet with the names of the person and the corresponding company on it, according to standard EN-397 with a maximum weight of 500 grams. Helmet chinstrap EN 397.
- Eye protectors with side shields according to standard EN-166.
- Safety boots or ankle boots according to standard EN-345, meeting the requirements of safety class S3 (toe shield, protection against penetration by nails, antistatic, patterned flexible sole).
- Protective clothing with long sleeves meeting the requirements of standard EN ISO 11612, A1, B1, C1. If the protective clothing is not high-visibility i.e. does not meet the requirements of EN 471 class 1 at the minimum, the contractors must use a high-visibility vest.
- Hearing protection must be worn at all times in the area.The hearing protection must meet the requirements of EN 352.
- Work gloves are used as required by the task. All work gloves must be EN 420 and EN 388 category 2-compliant. When handling chemicals, chemical gloves classified for handling the chemical in question according to EN 374-1 are used. Contractor must evaluate work related risks to hands and choose working cloves that protect against these hazards. E.g. Cut-resistant gloves are used in tasks that involve a risk of injuries from sharp objects, such as blades or thin metal sheets. Cut resistant class D is the minimum requirement for cut resistant gloves.
- Impact protection gloves (EN 388 classification P) must be used for mechanical work where there is a risk of impact or pinching of the fingers, unless other hazards have been identified in the risk assessment that require protective gloves (chemical, thermal, electrical) In addition the finger saver tool has to be used in opening works when holding the ring wrench.
- Safety harness must be used when using a man lift (hoist), installing scaffolding or working in other conditions with a risk of falling. Safety harness

must always be used and properly attached, when it is possible to fall **1,8** meters and the risk of falling cannot be eliminated by other proper means (guard rails, barriers, etc.). Safety harness must always attach.

- At the construction site contractor personnel is mandatory to have a valid illustrated identity card with tax number. Also name and company visible on the helmet.

### 23.2 Special protective equipment

The person issuing the work permits specifies the required special protective equipment when writing the permit. The contractor must know what special protective equipment is required for their work. They must also provide the employees with the required equipment and be familiar with the level of protection offered by the equipment.

## 24. Working at height

Separate operating instructions and plans have been created for the construction site for working at height and fall protection. The instructions for working at height and fall protection present the basic principles and operating methods for working at height. The fall protection plan identifies areas on the site where there is a risk of falling and outlines measures to eliminate these risks. Each contractor must familiarize themselves with the plans in question and, for their part, ensure the safety of their own work site and that their employees are familiar with the necessary plans.

**Preventing objects from falling**

Working at height always involves the risk of various tools and other objects falling. When working at height, always ensure that nothing can fall from the work site.

**Tools and equipment**

Tools must always be secured either to the person performing the work or to a safe place in the immediate vicinity of the work site. Tools must be used with equipment

suitable for the tool and the task at hand, such as a tool holder (safety straps, safety cables, or other systems that prevent the tool from falling). Be aware of the risk of tools falling, even when taking a tool out of a tool bag or from a transport box. Also ensure that other machines and equipment used at the work site (e.g., angle grinders, reciprocating saws, nut drivers) cannot fall.

**Equipment**

When installing equipment (safety valves, valves, instruments, etc.), pay attention to installation safety and take additional precautions to prevent equipment from falling during dismantling or installing (e.g., when installing/removing equipment outside of work platforms).

**Insulation material**

If dismantled and installable insulation materials (wool, insulation boxes, metal sheets, etc.) are stored on platforms, they must be carefully packed so that they do not get wet or fall, for example, due to wind. Insulation materials packed in sacks must be secured in a safe place on the grate levels (they must not cause a hazard, for example when walking on the grate levels).

**Other materials and small items**

All other materials and small items (e.g., nuts, bolts, gaskets, gas bottles, fire extinguishers, etc.) that cannot be securely fastened must be stored safely so that they cannot fall from platforms or work sites. Safe storage can be achieved using various containers, bags, sacks, or other storage solutions. Keeping/storing items loose, for example on grating platforms, is prohibited.

**Fall protection nets**

For the protection of work platforms (e.g., grating platforms and spaces between platform railings), a close-mesh safety net is available on site, which must be used in areas where there is a risk of tools or other materials falling and where objects cannot be secured in any other way to prevent them from falling. The net must be properly positioned and secured to avoid the risk of tripping or other hazards.

**Working on roofs**

A separate risk assessment must always be carried out for roof work in collaboration with the client company.

## 25. Code of practice for infringement cases

This instruction describes the procedures and sanctions for non-compliance with Borealis' HSE regulations. These instructions applies both to Borealis employees and service providers. Code of practice have three steps. In case of aggravated cases the three steps are not necessarily followed. Cases of misconduct are investigated in conjunction with the person's line manager or other company representative. The causes and possible consequences of the violation will be investigated. The seriousness of the offence (intent, consequences, possible consequences) is assessed.

1. Verbal warning
2. Written warning
3. Removal from construction site

Aggravated violation cases might follow a straight removal from the area and ID card confiscation. These cases could e.g. be:

- Intentional neglecting of Borealis Life Saving Rules or other HSE regulations/rules
- Criminal acts
- Alcohol or other substance violation cases
- Physical or oral violence
- Neglect in performing one's work duties

Borealis have zero tolerance for all sexual harassment cases and all the cases will be investigated.

## 26. Changes to Construction site safety plan

The Construction HSE plan is a live document and shall be revised as required e.g. in case of Borealis internal instruction changes or other changes during Turnaround. Turnaround Safety Coordinator will make update. Updated plan is always available in Turnaround webpage and on the construction site info-board.