

## Contents

<b>Definitives</b> .....	<b>2</b>
<b>10.1</b>	<b>General provisions</b> .....
10.1.1	Requirements.....
10.1.2	Complying with Safety Regulations .....
10.1.3	Additions / Changes .....
10.1.4	HSE plan .....
10.1.5	Safety Oversight .....
10.1.6	Activities of Subcontractors .....
10.1.7	Collaboration Between Two or More Contractors and/or Subcontractors.....
10.1.8	Work and Break Provisions .....
10.1.9	Regulation Concerning Young People .....
10.1.10	Ban on Smoking, the Use of Alcoholic Drinks and Narcotics .....
10.1.11	NActivities Not Covered .....
<b>10.2</b>	<b>General safety measures</b> .....
10.2.1	Organisation of the Building Site/Workplace and Transport Roads .....
10.2.2	Storage of Hazardous Substances.....
10.2.3	Electricity at the Building Site .....
10.2.4	Neat and Tidy (Good House Keeping) .....
10.2.5	Personal Protection Gear .....
10.2.6	Using Wireless Connections .....
10.2.7	Preventing and Limiting Fires.....
10.2.8	Reporting Fires and Accidents .....
<b>10.3</b>	<b>Safety measures for the performance of activities</b> .....
10.3.1	Traffic Measures for Activities Performed Beside and On Roads .....
10.3.2	Measures To Take When Performing Work in Close Proximity to Electrical Works .....
10.3.3	Machinery and Means of Transport (vehicles).....
10.3.4	Equipment .....
10.3.5	Performing Excavation Activities .....
10.3.6	Using Pile Drivers.....
10.3.7	Performing Hoisting Activities.....
10.3.8	Hoisting and Lifting Devices and Hoisting Elements .....
10.3.9	Working High Above the Ground.....
10.3.10	Climbing Materials, Passenger Lifts and Scaffolding .....
10.3.11	Assembling Steel Constructions.....
10.3.12	Using Formwork and Temporary Support Structures.....
10.3.13	Manufacturing and Processing Elements for Assembly .....
10.3.14	Securing Wall and Floor Openings.....
10.3.15	Working in Confined Spaces.....
10.3.16	Performing Welding and Cutting Activities .....
10.3.17	Performing Demolition Activities.....
10.3.18	Transporting and Working with Hazardous Substances .....

## Definitions

- The Client is Uniper Benelux;
- The Contractor is the employer who, on the instruction of the client, performs the work or has it performed at the building site;
- The Subcontractor is the employer who, on the instruction of a contractor, performs the work or has it performed at the building site;
- The Project is the entirety of activities necessary to realise an installation for Uniper Benelux;
- Uniper Benelux Project Management is the management of a project of Uniper Benelux;
- The HSE Plan is the Health, Safety and Environment Plan (Veiligheids- en GezondheidsPlan) as referred to in Article 2.27 of the Working Conditions Decree (*Arbeidsomstandighedenbesluit*, i.e. *Arbobesluit*);
- A Building Site is a location of Uniper Benelux at which the work is carried out.

## 10.1 General provisions

### 10.1.1 Requirements

- 10.1.1.1 These safety regulations are intended to supplement the General Conditions of Purchase (Uniper/2018-01) and leave intact that which is established in the General Conditions of Purchase (*Algemene Inkoopvoorwaarden*) of Uniper Benelux.
- 10.1.1.2 Companies that perform activities with an increased risk for Uniper Benelux should, at a minimum, possess a company SCC certificate (*VCA certificaat*). Individual employees should also possess a valid SCC personal certificate (*VCA persoonscertificaat*) or SOS-SCC (*VCA-VOL*) certificate (for managers).
- 10.1.1.3 Only activities that have been granted by means of a signed work permit may be performed at Uniper. Measures that are stated on this work permit should be strictly complied with.

### 10.1.2 Complying with Safety Regulations

- 10.1.2.1 The (sub)contractor is responsible, and his managing employees bear co-responsibility, for the safety of his personnel. Without prejudice to this personal, independent responsibility, the (sub)contractor pledges to comply with these safety regulations and they should comply with the instructions and recommendations of the project management of the client.

### 10.1.3 Additions / Changes

- 10.1.3.1 By means of written instructions, the client is entitled to introduce additions and/or changes to these safety regulations.

### 10.1.4 HSE plan

- 10.1.4.1 Before the commencement of his building or assembly activities, the contractor should present an HSE plan to the project management of the client on time in order to make the requirements and instructions referred to in 010.1.1 concrete. With regard to the contents of the HSE plan, the project management is entitled to set conditions if, in its

judgement, there is reason to do so. The safety measures described in the HSE should be put into effect on time.

#### 10.1.4.2 An HSE plan shall minimally meet the following conditions:

- Describe the activities (what is their within their scope and what is beyond their scope) as well as the necessary and agreed to support.
- HSE organisation, responsibilities and competencies (including subcontractors), including communication with subcontractors;
- Planning of work activities, their dependency on other activities and the manner in which these dependencies will be managed;
- General Safety Instructions and Procedure and safetyspecific Business Directives including the clothing and PBM regulations for the employees; references to Uniper procedures received shall be made explicit;
- Necessary safety-related training of deployed personnel and training agreed to with the client that is to be received. For this purpose, an overview of the employees to be deployed and a copy of the certificates that show that they possess the earlier indicated necessary skills should be provided no later than two weeks prior to the commencement of the work;
- Task Risk Analysis and measures to remove or sufficiently limit the risks. As a part of this, list the dangers and the associated measures by:
  - Task;
  - Workplace & Environment;
  - Work Method;
  - Tools/equipment and substances to be used.
- Contingency or action plan should the risks identified result in an incident.
  - Action and/or rescue plan for an incident in order to limit the size and seriousness of the incident as quickly and best possible (including fire-extinguishing and first-aid facilities and/or rescue plan (i.e. if necessary for works at high elevation or in a confined space));
  - Evaluation of hazardous substances used in the event of a disaster;
  - Escalation procedure and contact persons or contact information (24 hours);
  - Method of incident investigation and manner in which evidence from the incident is secured.
- Housekeeping during maintenance jobs, (environmentally responsible) removal of waste and manner in which the workplace is left after this work is completed;
- Manner in which oversight and supervision is regulated;
- Procedure of disciplinary measures at the moment violations of the safety regulations are discovered.

### 10.1.5 Safety Oversight

10.1.5.1 The client shall carry out random checks on compliance with the safety regulations, without prejudice to the personal, independent responsibility of the (sub)contractor or subcontractor. The (sub)contractor should also conduct reasonably required oversight and reach agreements with the client to conduct oversight rounds together. The oversight conducted by the client never releases the (sub)contractor from his own responsibility.

### 10.1.6 Activities of Subcontractors

10.1.6.1 The contractor is required to remind his subcontractor(s) in writing of the requirements that have been set with respect to safety in these safety regulations. The contractor should also ensure that his subcontractors comply with the established safety requirements.

### 10.1.7 Collaboration Between Two or More Contractors and/or Subcontractors

10.1.7.1 Two or more contractors and/or subcontractors that work at one location of Uniper Benelux on the same project are required, under the Working Conditions Act (*Arbeidsomstandighedenwet*), to draft an HSE plan together within the context of their shared concern for the safety and the working conditions of their employees.

10.1.7.2 The HSE plan should be presented to the project management of the client on time, well before the commencement of the joint work activities.

### 10.1.8 Work and Break Provisions

010.1.8.1 When setting his employees to work, the (sub)contractor should observe the legal provisions governing work and breaks. If asked, the (sub)contractor should hand over the work rosters of his employees to the project manager of the client.

### 10.1.9 Regulation Concerning Young People

Employees of the contractor or subcontractor that are under the age of 18 may not perform work activities unless this is expressly agreed to with the client and it does not violate the law.

### 10.1.10 Ban on Smoking, the Use of Alcoholic Drinks and Narcotics

There is a general ban on smoking at the locations of the client. Smoking cabins have, however, been placed at various places. It is forbidden to bring alcoholic drinks, narcotics and/or other drugs, such as medicines, that influence the reaction capacity of people onto the building site. It is also forbidden to be on the work site under the influence (0 ‰) of alcoholic drinks and/or narcotics. Any-one that is found to be under the influence of these substances shall not be granted entry to the building site or shall be removed from it. Employees of (sub)contractors that carry out work activities for Uniper declare on accepting the job that they will agree to any inspections conducted. Employees that use medicines that bear a yellow or red sticker should carry a letter from the working conditions doctor on their person that states that safety on the job will not be put at risk due to the use of these medicines.

### 10.1.11 Activities Not Covered

Before the work is begun, effective safety measures should be taken with respect to work activities not covered by these safety regulations that could constitute a danger to persons. These safety measures should be based on a Task Risk Analysis (TRA). The project management of the client should be involved in this TRA.

## 010.2 General safety measures

### 010.2.1 Organisation of the Building Site/Workplace and Transport Roads

010.2.1.1 A building site/workplace should be organised such that:

- employees can be and work there in safety;
- the necessary materials and tools can be stored safely; hoisting devices and machines can be set up safely;
- unauthorised personnel can be kept off the site;
- the different workplaces can be easily and safely reached (e.g. in order to administer first aid)).

10.2.1.2 The transport road network at the building site/workplace should be kept intact. It should have:

- a safe entrance and exit;
- safe feeder and removal roads;
- safe internal transport routes for employees and material;
- the necessary traffic facilities.

10.2.1.3 Each workplace within the building site should be accessible via safe, passable and sufficiently lit entrances and personnel should be able to leave them quickly during evacuation. Walking routes will be separated if possible from vehicle routes.

10.2.1.4 To be able to reach the entire building site/workplace easily during disasters, all roads should be kept free from obstacles so that the road width clearance is at least 3.5 metres and the clearance above the road is at least 4.2 metres.

10.2.1.5 Temporary break, dressing, washing and toilet facilities, work areas and other rooms that employees regularly use should be set up in accordance with the regulations of Deltalinqs.

10.2.1.6 To install temporary accommodations, permission from the Boundary manager of the Uniper location concerned is always necessary.

### 010.2.2 Storage of materials and tools:

10.2.1.7 All building materials (including building elements), auxiliary materials and tools should be stored safely such that they cannot unexpectedly move (shift, tilt and/or turn).

10.2.1.8 The employees responsible for storing materials and such jobs should be able to occupy a safe post for their activities.

10.2.1.9 The carrying capacity of the floor on which the materials, auxiliary materials and tools are placed should be sufficient enough that, during unfavourable weather conditions such as wind, rain or frost and with changes in the level of

the groundwater, a stable placement of the materials, etc., is ensured. If necessary, the foundation should be improved by the client in advance, if necessary after being notified by the (sub)contractor.

10.2.1.10 The structures used for storage, such as frames, shelves, racks and such things, should be sound and made from materials that are suited for purpose. These structures should be erected so that they are stable and are able to handle the loads they are meant to bear.

10.2.1.11 Whether or not the storage of materials, auxiliary materials and tools still meets the safety requirements should be closely checked on a regular basis.

## 10.2.2 Storage of Hazardous Substances<sup>1</sup>

10.2.2.1 The storage of hazardous liquids and solids in packaging (0 to 10 tons) should meet the legal provisions that are summarised in the journal PGS15.

10.2.2.2 Flammable liquids of the K0, K1 and K2 classes<sup>2</sup> may not be stored in buildings, warehouses, sheds and suchlike that are under construction or already completed nor within a distance of 5.00 metres from them.

10.2.2.3 Combustible compressed gases may not be stored in:

- buildings under construction or already completed nor within a distance of 15.00 metres from them;
- warehouses, sheds and suchlike<sup>3</sup> or within a distance of 5.00 metres from them.

10.2.2.4 Compressed gases should be set up in a clearly visible and at all times easily reachable and accessible place in the open air - but protected from direct sunlight. They should also be set up such that they cannot fall over. Gas cylinders, inasmuch as they are not a part of packages, may not be set up in a horizontal position.

10.2.2.5 When storing gas cylinders, a clearly visible separation should be established between combustible and incombustible gases and between full and empty cylinders.

10.2.2.6 The storage of acetylene, propane and oxygen should meet the instructions given in the Working Conditions Decree (*ArboBesluit*) and the Working Conditions Policy rules (*ArboBeleidsregels*).

10.2.2.7 The safety warning signs required according to the Decree on Safety Warning Signs at Work (*Besluit veiligheidssignalering op de arbeidsplaats*) should be placed on the entrance doors to storage areas used to store combustible compressed gases, flammable liquids and other hazardous substances so that they are clearly visible.

10.2.2.8 Flammable liquids and chemicals should be packaged in a manner such that:

- none of the substance can escape from the packaging;
- the material of the packaging cannot be affected by the substances or cannot start a dangerous reaction

with these substances or form a harmful or dangerous compound with these substances;

- the packaging can withstand normal handling.

10.2.2.9 The indications required according to the Hazardous Substances Act (*Wet Milieugevaarlijke Stoffen*) should be displayed on the packaging of flammable liquids and chemicals as required by said Act.

10.2.2.10 The storage of chemicals should occur in separate places suited for the purpose or in areas specially fitted out for the purpose. In these places/in these areas the different chemicals should be stored separated from one another in a clearly visible manner.

10.2.2.11 A storage area for chemicals should:

- be sufficiently ventilated by the outside air; be effectively fitted out for purpose;
- be neat and tidy;
- be secured with lock and key outside business hours.
- Materials that may not come into contact with one another should be sufficiently separated.

10.2.2.12 A tapping area for hazardous substances should meet the requirements given in PGS 15.

10.2.2.13 Storing sources of radiation on the building site is only permitted if:

- permission is granted in writing for this in advance by the building site management of the client;
- all legal requirements according to the Decree on Radiation Protection in the Nuclear Power Act (*Besluit Stralenbescherming Kernenergiewet*) have been met.

10.2.2.14 Storing hazardous substances at the building site/workplace is only permitted after written permission is granted by the project management of the client.

## 10.2.3 Electricity at the Building Site

10.2.3.1 The electrical low-voltage installation at the work site should meet the safety regulations for low-voltage installations as established in the Dutch standard NEN 1010 and the additions to and recorded interpretations of this standard<sup>4</sup>.

10.2.3.2 Work activities performed on low-voltage installations should be performed by a qualified electrician or by another person qualified to perform the activities. The standards NEN-EN 50110, NEN 3140 apply.

10.2.3.3 The electrical low-voltage installation of a (sub)contractor may not be connected to the low-voltage network of the client until this installation has been checked and approved by or on the instruction of the building site management of the client.

10.2.3.4 During the assembly of steel structures, bunkers, tanks, boilers and suchlike (Confined Spaces), whereby the persons performing the activities regularly come into contact with metal parts, the power supplied to the electrical

<sup>1</sup> The term 'hazardous substances' here refers to the substances that are named in Article 2, paragraph 1a of the Hazardous Substances Act (*Wet Gevaarlijke Stoffen*) and radioactive substances.

<sup>2</sup> K0, K1 and K2 liquids are flammable substances in liquid form that at 50°C have a vapour pressure of no more than 3 bar with a flash point lower or equal to 55°C.

<sup>3</sup> An exception to this is the storage of propane cylinders for cooking and/or heating installations (see 010.2.3.10).

<sup>4</sup> Express reference is made to Chapter 14 "Temporary installations in factories, at building sites and on board ships" and Chapter 75 "Special Circumstances".

equipment used and to the electric lighting should be supplied in one of the following manners, preferably in the order indicated:

- by means of a nominal alternating current of no more than 50 Volts between the phases or between one of the phases and the earth<sup>5</sup>;
- by means of a nominal direct current of no more than 120 Volts between the poles or between one of the poles and the earth;
- by means of a nominal alternating current higher than 50 Volts, provided a protective transformer is incorporated in the power supply line. To apply this voltage level, written permission is needed from the building site management.

10.2.3.5 For activities performed in close quarters with conductive elements, such as (fully assembled) bunkers, tanks, boilers and suchlike (Confined Spaces) in which a person's freedom of movement is so limited that he continually or virtually continually is in contact with these conductive elements, the power supply to the electrical equipment used there and to electric lighting should be supplied in one of the following manners:

- by means of a nominal alternating current of no more than 50 Volts between the phases or between one of the phases and the earth<sup>6</sup>;
- by means of a nominal direct current of no more than 120 Volts between the poles or between one of the poles and the earth.
- In cases arising, an isolating transformer can be used in consultation with the project manager.

10.2.3.6 In cases of electric welding in situations like those referred to in 010.2.3.4 and 010.2.3.5, then only a direct current welding appliance with a nominal voltage of no more than 120 Volts or only an alternating current welding appliance in which, during the period in which the welding current is interrupted, the secondary voltage is nominally not more than 50 Volts (see Article 010.3.16.7) may be used.

10.2.3.7 The portable power supply sources used (protective or safety transformers, the converters and the switch and distribution systems should be set up outside the close quarters with conductive elements and the bunkers, tanks or boilers and such like.

If circuits are used that have nominal alternating current that is higher than 50 Volts in combination with an earth leakage circuit breaker, then the metal structures must be provided with a sound safety earth, unless they are naturally earthed in a sound manner.

The steel structures on the central complexes have such a low electrical resistance with respect to the earth that these structures should be considered as being soundly earthed.

10.2.3.8 Junction boxes should be so solidly built that the equipment set up in the cabinet is shielded from damage. These junction boxes should bear the name of the contractor or the subcontractor.

10.2.3.9 Junction boxes should be built perpendicular, solid and watertight.

10.2.3.10 If there is any chance that unauthorised persons could come into contact with the equipment set up inside the box, then the junction box should be secured so that contact with the equipment in the box is excluded.

10.2.3.11 Electric lines must be designed such that the penetration of water is excluded. The use of so-called flat cable is forbidden on the building site.

10.2.3.12 Electric wiring/cables may not be laid on the ground or work floors without protection. They should, as much as possible, be routed in a safe manner and at a sufficient height above the ground or the workfloors.

10.2.3.12 If path lighting and/or work lighting is used, then the fixtures used must be solid, sturdy and safe to touch. The lamps should not be incorporated into the fixtures in an unprotected state.

10.2.3.13 After the end of the working hours, all electrical installations on the building site itself, as well as at central points, should be made dead to electric current and should be made inaccessible to unauthorised persons, in so far as this is possible in connection with the activities to be performed.

## 10.2.4 Neat and Tidy (Good House Keeping)

10.2.4.1 Work floors, work surroundings, roads and terrains should be kept free of unnecessary materials and be cleared up daily or as more often as is necessary. Spilled oils, grease and chemicals should be wiped up immediately and the spot covered with an absorbent agent. This should also be reported in accordance with the Uniper procedure.

10.2.4.2 Once they have been left over, used materials should instantly be placed in a suitable place and all nails should be removed from them immediately.

10.2.4.3 It is forbidden to throw objects or let them fall from a height to the ground below unless:

- this is done through a chute whose exit end is covered; or;
- this is done at cordoned off parts of the terrain where there are clearly legible and/or understandable signs that warn people about the danger at the site.

10.2.4.4 It is forbidden to pollute terrains and buildings by failing to use the designated toilet facilities.

10.2.4.5 Electrical wiring/cables, gas lines or hoses and other lines may not be laid on the ground or work floors without protection. They should, as much as possible, be routed in a

<sup>5</sup> If this voltage is received from a transformer, then it must be a safety transformer that meets the provisions of the Dutch standard NEN 40015.

<sup>6</sup> A protective transformer is a transformer with separated coil windings and an increased level of insulation.

NEN 40015 has the following application area:

The requirements listed in this standard apply to fixed and portable single-phase or three-phase safety transformers with air-cooling, whose nominal secondary voltage is not higher than 50 Volts and whose nominal primary voltage is not higher than 500 Volts, the nominal power is not higher than 10 kVA and the nominal frequency is not higher than 500 Hz. A safety transformer is a transformer with separated coil windings and an increased level of insulation and for which, under nominal primary voltage, the highest occurring secondary voltage is not higher than 50 Volts.

- safe manner and at a sufficient height above the ground or the work floors.
- 10.2.4.6 In each work area, there should be a sufficient number of suitable rubbish bins (containers) placed in which to collect the rubbish produced. The rubbish should be collected and separated by type. It is not permitted to deposit the rubbish produced anywhere except in these containers. Full rubbish bins should be emptied regularly before they overflow.
- 10.2.5 Personal Protection Gear**
- 10.2.5.1 The (sub)contractor should make all necessary and suitable personal protection gear available to his personnel. He should direct his personnel to use this gear and he should ensure that the personnel are instructed about the proper use of the gear. Oversight should be conducted by or on behalf of the (sub)contractor concerning the proper use of the personal protection gear.
- 10.2.5.2 At locations where the use of one (or more) piece(s) of personal protection gear is required, this requirement should be indicated by means of a sign or signs to that effect.
- 10.2.5.3 Employees are required to use the prescribed personal protection gear.
- 10.2.5.4 The personal protection gear should meet the current Dutch standards, should be in good condition and should be maintained properly.
- 10.2.5.5 Unsound personal protection gear should be replaced and removed from the building site.
- 10.2.5.6 A safety helmet should be worn in locations where there is a chance of head wounds occurring or where helmets are required to be worn by means of signs or otherwise.
- 010.2.5.7 Effective safety goggles should be worn during grinding activities (see H&S Standard "*personal protection equipment*"), including when manually or otherwise hewing stone, grinding metal, etc.
- 010.2.5.8 When a person performs autogenic welding or cutting activities, he is required to wear welding goggles. When he performs electrical welding activities, he is required to wear a welder's shield.
- 10.2.5.9 In a zoned area where the sound level exceeds 80 dD(A), persons that are exposed to this harmful noise level should wear suitable hearing protection gear.
- 10.2.5.10 If a danger of breathing in harmful particles suspended in the air, gases or vapours is present, then persons that are exposed to this danger should wear effective breathing protection gear.
- 10.2.5.11 Every employee on the building site should wear protective clothing and protective footwear (type S3). This clothing and footwear should be kept in good condition. (see H&S Standard "*personal protection equipment*").
- 10.2.5.12 Wearing rings, freely hanging neckties, freely hanging long hair, etc., during work is not permitted.
- 10.2.5.13 If a danger of adversely affecting or damaging the hands is present, then effective, suitable work gloves should be worn.
- 10.2.5.14 When activities are being performed at a workplace where there are no effective railings, etc. and where there is a danger of falling from a height or into the water, then reliable safety belts or safety nets should be used.
- 10.2.5.15 If there is a danger of people drowning present, then the contractor or subcontractor should make life jackets available, require them to be worn and ensure that effective equipment for rescuing drowning people, such as rowboats, life buoys, grapnels, etc., is present.
- 10.2.5.16 Persons that perform work activities on or beside roads and persons that must continually be in close proximity to machinery and transport vehicles should be clearly visible.
- 10.2.6 Using Wireless Connections**
- 10.2.6.1 Wireless connections (used for communication and to operate machinery and hoisting equipment) should be registered. The proof of registration should be submitted to the client's building site management before these connections are used on the building site.
- 10.2.6.2 Using wireless connections on the building site is only permitted if the frequency used is different from the frequencies of other wireless connections used on the building site (in order to prevent interference with, for example, measurement and control equipment).
- 10.2.6.3 When using wireless communication, extreme care should be taken to use a good communication procedure (call sign code) in order to prevent mistakes resulting from outside interferences as much as possible.
- 10.2.7 Preventing and Limiting Fires**
- 10.2.7.1 Flammable liquids may not be stored in buildings, warehouses, sheds and suchlike that are under construction or already completed nor within a distance of 5.00 metres from them. They should be stored in a manner as indicated in 010.2.2.
- 10.2.7.2 Combustible compressed gases should be stored in a manner as indicated in 010.2.2.3.
- 10.2.7.3 Once within the buildings, flammable liquids should be processed quickly. Flammable waste and excess materials should be removed from the buildings immediately and taken to a fireproof location set aside for that purpose.
- 10.2.7.4 Burning waste material on the building site is forbidden.
- 10.2.7.5 When using an open flame for welding, burning or cutting activities, a proper distance should be kept from flammable objects or such effective measures should be taken so as to prevent the outbreak of fire.
- 10.2.7.6 For activities that entail a fire danger not only at the point of operation, but also at points located lower due to, among other things, flying or falling melted metal particles, sound measures to be taken to prevent the outbreak of fire.
- 10.2.7.7 At the place where fire or an open flame is being worked with or where a danger of fire breaking out exists, the (sub)contractor should ensure that there are sufficiently suitable and properly working fire extinguishers on hand. These fire extinguishers should:

- be and be kept clearly visible and accessible for everyone at all times;
- be inspected at least once every six months for their readiness for use; the time at which the last inspection was conducted should be indicated on each fire extinguisher.

10.2.7.8 In locations where, due to fire danger, the use of fire, open flame and smoking is forbidden, this prohibition should be indicated in a clearly visible manner through the use of a standardised sign.

010.2.7.9 If a risk of fire exists, the personnel should be trained to use small fire extinguishing agents effectively.

## 10.2.8 Reporting Fires and Accidents;

10.2.8.1 The (sub)contractor should report fires, accidents and other emergency situations immediately. This report should be made to the central telephone desk of the client (alarm no. 88 for a landline or 0181-886075 for a mobile telephone). After the report is made, the central telephone desk will, if necessary, alert one or more of the following (emergency) services:

- Emergency Response Officers (ERO),
- government fire brigade,
- medical assistance,
- ambulance.

10.2.8.2 First-aid in response to accidents may only be administered by a person that possesses an ERO/First Aid diploma.

All incidents, near accidents, dangerous situations, etc., should be reported directly to the manager and in writing or via the Uniper incident management system to the client. In cases arising, the possibility of offering replacement work should be discussed if a person is unable to perform his normal duties for the client. Towards this end, a recommendation should be requested from a working conditions doctor (Arbo-arts).

## 010.3 Safety measures for the performance of activities

### 010.3.1 Traffic Measures for Activities Performed Beside and On Roads

010.3.1.1 When activities are performed beside or on roads on the building site, the traffic measures should be taken that are indicated in the "Manual for working safely on roads" ISBN 9066283858. Among other things, this concerns proper cordoning off, the use of professional safety signs, clothing with a high-visibility colours and retroreflective strips.

### 010.3.2 Measures To Take When Performing Work in Close Proximity to Electrical Works

010.3.2.1 Work performed in close proximity to electrical works on the building site may not be started until written permission is granted for this work by the building site management or the client.

### 010.3.3 Machinery and Means of Transport (vehicles)

10.3.3.1 The contractor, subcontractor or (acting) authorised person is required to ensure that the machinery and means of transport with accessories supplied to him meet (and continue to meet) the requirement of sound construction and are built from sound materials.

10.3.3.2 The machinery and means of transport may never be used for a purpose other than that for which they are intended.

10.3.3.3 Machinery and means of transport may not be put into operation until the necessary measures have been taken that ensure that no injuries can be caused to persons.

10.3.3.4 The parts of the machinery and means of transport that could be a cause for danger should be effectively shielded. If the necessary protections are not put in place or are not used, then the machinery or the means of transport may not be put into operation or kept in operation.

10.3.3.5 The components of the machinery and the means of transport that require regular inspection and maintenance should be accessible and within reach without involving danger.

10.3.3.6 The operating places and other open places on the machinery and the means of transport should be able to be reached and left safely.

10.3.3.7 If a danger exists that persons who operate the machinery or the means of transport can be hit by falling objects, or if there is a danger of being trapped if the machinery or the means of transport turns over, then the machinery or the means of transport should have a cabin or guard that is designed to provide sufficient protection against these dangers.

10.3.3.8 The control units of hoisting and swivelling mechanisms in machinery used should be designed such that, when an operator lets loose of these control units, it automatically cuts the power to the drive propulsion and the machinery's movement is thus brought to a standstill.

10.3.3.9 The hydraulic or pneumatic systems of machinery and of means of transport should be designed such that and should be in such a condition of maintenance that the machinery or the means of transport or components thereof or the load cannot suddenly or unwillingly start to move.

10.3.3.10 The machinery and the means of transport may not be left in such a condition that unauthorised persons are able to put this machinery or these means of transport into motion. When leaving machinery or a means of transport, the components that were being lifted or could be lifted should be left in a lowered position and the pressure in the lines should be released. Main valves should be closed and be so bolted or locked with a key that these main valves cannot be operated by unauthorised persons.

010.3.3.11 The machinery and the means of transport may only be operated by persons that are authorised to do so and their authorisation should be substantiated by valid certificates.

010.3.3.12 When the machinery and means of transport are being operated, only the machinist may be present in the machinery unit.

010.3.3.13 The machinery and the means of transport should be operated and set up such that their stability is not put into

danger due to the lack of a good substrate, when sliding down a slope or due to other causes.

010.3.3.14 Machinery that is not manned or in use should be blocked to prevent its unauthorised use.

### 10.3.4 Equipment

10.3.4.1 The contractor, subcontractor or (acting) authorised person is required to ensure that the tools he supplies meet the requirements of good tools and are not used for a purpose other than that for which they are intended..

10.3.4.2 The parts of tools that could cause damage should be effectively covered. If the necessary coverings have not been placed or are not being used, then the tools may not be used or kept in use.

10.3.4.3 The electrical tools that are present at work should be constructed and should be used and/or tested in accordance with the current Dutch standards NEN 1010, 3140 and 50110. Among other things, this means that only the following tools may be used:

- a tool that is powered by a nominal alternating current of no more than 50 Volts between the phases or between one of the phases and the earth;
- a double insulated tool allowed by the Labour Inspectorate that is powered by a nominal alternating current higher than 50 Volts. At the same time, the regulations 010.2.3.4 and 010.2.3.5 should be observed.

The control units of electric hand tools should be designed such that, when the users let loose of these control units, the power is automatically cut off and the movement of the tools brought to a standstill. The following tool-specific requirements apply:

- Angle grinders;
  - All angle grinders should be operated using two hands
  - All angle grinders should have a disk guard that meets the legal requirements;
  - All angle grinders should have a kickback safety
  - All angle grinders should have a brake that stops the disk after the operator lets go of the start button
  - Angle grinders may not have a 'lock-on' switch
  - The disk that is used on the grinder should be suitable for the material and the application. Cutting with sanding disks is strictly forbidden
  - The use of pneumatic grinders should be kept to a minimum
  - The grinding disk to be used should be within the expiry date of this disk
- Drills:
  - Use drills that have an angled handle.

10.3.4.4 When using pneumatic tools, the following points should be observed:

- the compressor should be a silent type and should be set up in the open air;

- the operation of pneumatic hand tools should be such that the machine cannot be accidentally turned on when it is unintentionally touched;
- the regulator of pneumatic tools should be regularly checked to verify it is operating properly;
- air lines may not be laid on the ground or work floors without protection. They should, as much as possible, be routed in a safe manner and at a sufficient height above the ground or the work floors.

### 10.3.5 Performing Excavation Activities

10.3.5.1 Excavation activities may not be performed on the building site until permission is granted to do so by the building site management of the client.

10.3.5.2 Before ground and water works are begun, it should first be ascertained whether there are underground cables or lines on the site, in which case measures should be taken to prevent damaging them and thus creating dangerous situations.

When digging in the soil in close proximity to cables and lines, the (sub)contractor should always establish the correct location of the cables and lines by manually digging test pits. When drawings, etc., are provided, this does not release the (sub)contractor from this obligation..

10.3.5.3 When digging pits and trenches that are deeper than one metre, slopes should have the required incline, according to the type of soil, or should be held with earth-retaining constructions so that cave-ins cannot occur.

10.3.5.4 When using earth-retaining constructions, it should be shown, based on strength calculations, that these constructions meet the requirements that should be set for solid constructions with respect to the ground mechanics, the surface load and other factors.

10.3.5.5 If, because excavation work is being performed or due to the presence of a pit or trench in the immediate vicinity of a building, structure or construction, there is a danger that the building, structure or the construction, or parts thereof, will subside, collapse or fall over, then sufficient precautionary measures must be taken to prevent this.

10.3.5.6 The soil that comes out of an excavated pit or trench should be deposited in such a manner that it puts no extra pressure on the walls of the slope.

10.3.5.7 When machinery and means of transport and suchlike are set up near to pits or trenches, then a safe distance should be maintained (at least 0.6 times the depth of the pit or trench in question) between the machinery or means or transport concerned and the edge of the pit or trench.

10.3.5.8 Making directional bores with the aid of a directional boring unit is only permitted if this directional boring unit is constructed such that, when boring, the directional drill is entirely surrounded by the steel conduit to be installed.

10.3.5.9 If conduits with an internal diameter of 0.15 metres or larger are installed vertically in the ground for the purpose of groundwater drainage, shoring something up or for other purposes, then these conduits should be soundly sealed shut at the top.

- 10.3.5.10 If inside or in close proximity to a pit or trench there are pipes that, due to leakage or otherwise, could constitute a danger, then measures should be taken to prevent this danger.
- 10.3.5.11 A pit or trench in which people must spend time should have a sufficient number of entrances and exits (ladders, slope stairways and suchlike).
- 10.3.5.11 A trench whose width and depth from ground level amounts to more than 0.80 metres must have a sufficient number of reliable crossings. These crossings should be at least 0.60 metres wide and be secured from shifting
- 10.3.5.12 At the place where work must be carried out in a pit or trench, a work clearance (width) of at least 0.60 metre should be maintained.
- 10.3.5.13 Pits and trenches should be effectively screened off and marked.
- 10.3.5.14 Groundwork and hoisting machines may only use the attachments that are approved for use on the machine in question.

### 10.3.6 Using Pile Drivers

- 10.3.6.1 Mobile pile drivers should be constructed and should be set up, used and maintained in accordance with the current standards.
- 10.3.6.2 Pile drivers are not permitted on the building site until written permission is granted by the client's building site management.

### 10.3.7 Performing Hoisting Activities

- 10.3.7.1 Performing activities with the aid of a hoisting or lifting device should, at a minimum, meet the pertinent legal provisions and standards. Hoisting activities are designated as being "high risk", which means they should be handled in accordance with the procedure for "high risk" work permits:
- 10.3.7.2 With respect to using different types of hoisting and lifting devices and hoisting elements, the instructions given in the different standards and official journals should be followed.
- 10.3.7.3 A hoisting or lifting device may be operated only by persons that:
  - are familiar with the operation of these devices and with the nature of the activities to be performed;
  - are familiar with the operating and maintenance regulations pertaining to the hoisting or lifting device;
  - possess the required diplomas.
- 10.3.7.4 Mobile cranes and fixed cranes to be set up are not permitted on the building site until written permission is granted for such by the building site management of the client (see 010.3.8.3).
- 10.3.7.5 To hoist loads, only hoisting and lifting devices and hoisting elements that are in good condition and that are suited to their objective may be used.
- 10.3.7.6 When performing hoisting activities, the (sub)contractor should describe in a so-called hoisting plan (perhaps as a part of an HSE plan), before the start of these activities,

what measures will be taken and provisions will be made by him to carry this work out safely.

This hoisting plan should be submitted by the contractor, subcontractor or (acting) authorised person to the building site management of the client on time before the start of the activities.

### 10.3.8 Hoisting and Lifting Devices and Hoisting Elements

- 10.3.8.1 The legal provisions pertaining to the construction, the strength, testing and the maintenance of hoisting and lifting devices and hoisting elements should be complied with. The instructions pertaining to different types of hoisting and lifting devices and hoisting elements that are given in the relevant official journals should be followed and the standards listed in these official journals should be observed.
- 10.3.8.2 For all fixed cranes set up and mobile cranes present on the building site, the following documents should be present on the crane:
  - a completed and maintained crane manual and maintenance book, according to the model established by the Minister of Social Affairs and Public Health, that is kept current by or on behalf of the owner;
  - a certificate issued by an authorised expert designated by the owner of the crane in question or by a department or institution recognised by the government that testifies that the crane in question has undergone a safety test and has been approved. The certificate must have been issued no longer ago than one year.
  - a test certificate for the hoisting equipment belonging to the crane (such as chains, pulley blocks);
  - a manufacturer's certificate for the steel cables used on the crane;
  - a certificate issued for truck-mounted cranes by the Department of Road Transport (*Rijksdienst voor het Wegverkeer*);
  - a clear instruction book in the Dutch language.
- 10.3.8.3 A fixed crane to be set up or a mobile crane is not permitted on the building site until the building site management of the client has established that the crane is in a safe condition and the required documents are present with the crane. Transporting a crane over the building site and setting it up on the building site are only permitted after written approval has been granted by and on the instruction of the building site management of the client.
- 10.3.8.4 Builder's hoists for transporting goods should:
  - meet the legal requirements.
  - meet the requirements set in NEN 108;
  - be approved by the Labour Inspectorate;
  - be in top condition
- 10.3.8.5 Builder's hoists should be set up in a safe manner such that the following points are taken into consideration:
  - the builder's hoist should be set up on flat ground and be level; the platform should be easy to access;
  - mounting several elements on the mast section should be done in a safe manner; e.g. by using a davit or a crane

- the distance between the platform and the floor(s) may not be greater than 0.10 of a metre;
- if the platform runs beside a footpath or scaffolding at less than 0.50 of a metre, then the guards installed at that section should be at least 2.00 metres high;
- at loading and/or unloading places on the mezzanine floors there should be a design present whereby the person that has to load and/or unload goods can prevent the man operating the hoist below from putting the platform in motion;
- the design referred to should be linked to a barrier that can exclusively bar or permit movement of the platform.

10.3.8.6 Builder's hoists used to transport goods may only be used for the vertical transport of building materials. It is forbidden to use a builder's hoist that is intended for goods transport as a way to transport people. This prohibition should be written on each builder's hoist in clearly legible text on the upright wall of the platform.

010.3.8.7 After it is set up, but before it is used, a builder's hoist should be inspected and properly tested by a qualified responsible person. This inspection and testing should be repeated at least every two months or sooner and after the hoist has stood unused for a long period.

010.3.8.8 Hanging up and moving crane cage work platforms holding people may only be done using a crane that meets the legal provisions and standards prevailing in the Netherlands and the official journals of the Labour Inspectorate, which should be evident from the completed crane manual and maintenance book. Regarding the use of cage work platforms hanging from cranes (see 010.3.9.5).

10.3.8.9 Unsound hoisting devices should be removed from the building site immediately.

10.3.8.10 The operation of hoisting devices and hoisting systems may solely and only be done by personnel that have taken the necessary training and instruction for this job and possess a hoisting certificate.

### 10.3.9 Working High Above the Ground

10.3.9.1 Activities carried out high above the ground are designated as being "high risk", which means they should be handled in accordance with the procedure for "high risk" work permits. When carrying out activities high above the ground, the measures that are required in accordance with the prevailing legal requirements and standards should be taken. In addition to these legal regulations, the instructions recorded in the "Scaffolding Procedure" and the H&S Standard "*working high above ground*" of Uniper Benelux should be followed.

10.3.9.2 In places where work activities must be performed high above the ground, safe sites must be present that must be accessible beside safe roads and/or climbing facilities.

10.3.9.3 Activities performed high above the ground that entail exceptional danger may not be performed unless the employees involved have received special training for this - in writing if necessary - from the work foreman or from another responsible person authorised for this purpose.

10.3.9.4 If there is a chance of accidents occurring when working high above the ground due to things such as high winds,

poor visibility, snowfall, slipperiness, low temperatures and such like, then the activities should be ceased unless measures are taken such that the risk of accidents is not greater than it is during normal weather conditions.

10.3.9.5 A cage work platform hanging from a crane may only be used if it meets the legally established conditions and instructions.

10.3.9.6 All climbing and anti-falling safety devices used by the contractors or subcontractors and their employees should:

- be permitted by the Labour Inspectorate;
- be kept clean and visually inspected for reliability periodically;
- be properly used.

### 10.3.10 Climbing Materials, Passenger Lifts and Scaffolding

When using scaffolding, Uniper Benelux's "Procedure for Scaffolding Construction" always applies.

- Scaffolding should meet the guidelines for scaffolding ([www.richtlijnsteigers.nl](http://www.richtlijnsteigers.nl)). The specific instructions are as follows:
  - If possible, the ladders should be placed within the scaffolding at an angle of inclination of 65 –75 degrees and should be secured so that they do not slip;
  - In the case of high scaffolding, there is an interim floor every 4 metres where the hatches are one above the other and are separated by the stairs;
  - The scaffolding has a railing at 0.9 of a metre and a kick guard of at least 0.1 of a metre to prevent falling material unless, in view of the location or nature of the scaffolding, there is no risk to persons passing below. At a maximum distance of 0.5 a metre from one another, there are middle rails.
  - If it is possible that there might be vehicle traffic in close proximity to scaffolding, then the scaffolding should be sufficiently protected against the danger of collision. The strength of this protection should be in line with the size of the vehicles that could threaten the scaffolding.
  - If scaffolding is placed over the road, then there should be a sign attached indicating the clearance height. The minimum height of this scaffolding should be 4.20 metres if trucks must be able to pass under:
- Scaffolding should be used in a safe manner, such that the following points are taken into consideration:
  - Scaffolding on which the red plastic holder (used for the labelling procedure) bearing the text "scaffolding is not ready" is attached may not under any conditions be mounted and used;
  - This regulation also pertains to scaffolding on which this holder has not (yet) been attached;
  - Scaffolding (including the work floors) may under no condition whatever be altered by the user. The scaffolding construction company that has received the instruction to do so is the only one permitted to alter scaffolding (including the work floors) and introduce hoisting structures to the scaffolding;
  - Scaffolding may not be loaded with more weight than the weight limit they can officially bear;

- o No auxiliary scaffolding may be placed on a work floor that is higher than 0.5 of a metre;
  - o Working from ladders and steps that are set up on the work floor of scaffolding is forbidden;
  - o On the work floors of scaffolding, materials may not be stacked higher than 0.55 of a metre, unless fencing is placed around the floors and the floor is designed to bear the weight;
  - o If material is stored on a scaffolding floor, then a safe foot path with a width of at least 0.60 of a metre should be maintained at all times;
  - o As long as work is being performed on scaffolding or there is traffic passing over it, the work floors and the access to those floors must be sufficiently lit;
  - o Electrical lines (cables), gas lines and other lines (hoses) may not be laid on work floors. They should, as much as possible, be safely routed/hung up on the scaffolding;
  - o Scaffolding on which one or more electrical cables are used should be properly earthed;
  - o Welding or burning activities may never be performed on scaffolding material;
  - o Work floors or gangways that have become slippery due to frost or otherwise should be strewn with sand or made passable in another manner;
  - o The work floors of scaffolding should, after the end of work activities - at least at the end of each work-day - be cleared
  - o If, after being put into use, it appears (e.g. due to an unsound alteration) that the scaffolding no longer meets the set requirements, then the following measures should be taken in the given order:
    - all persons present on the scaffolding should leave the scaffolding immediately;
    - the green label (used in compliance with the labelling procedure) should be removed from its holder by the person that discovered the defects on the scaffolding (which then means no one is permitted to mount the scaffolding);
    - the green label should be handed in immediately to the person that issued the order to assemble the scaffolding.
  - Hanging scaffolding built from steel pipes that are connected to one another by couplings should also at least meet the following requirements:
    - o All vertically mounted pipes should, at the top end and the bottom end, be provided with an extra coupling mounted only on the vertical pipe. These couplings should prevent incorrectly mounted horizontal pipes from sliding off;
    - o The scaffolding planks used as a work floor should be at least 50 mm thick when there is not a so-called "backup safety floor". Assembling hanging scaffolding requires extra safety measures (including the use of anti-falling safety devices and double couplings).
  - Moveable hanging scaffolding should be designed and hung up according to the instructions given in the Working Conditions Decree (*ArboBesluit*);
  - Cage work platforms that are hung from cranes and from which work activities are performed should follow the instructions given in the Working Conditions data sheet (*Arbo informatieblad*);
  - Rolling scaffolding should be designed and should be used and maintained in accordance with the instructions given in the Working Conditions Decree (*ArboBesluit*);
  - The supplier delivering aluminum rolling scaffolding shall ensure that a competent authorized employee will handle, the (dis)assembly, adjustment (including displacement) under his leadership. Authorized means that the competent supplier's employee has been officially designated in written by the supplier's Board/MT. Qualified means knowledge of the hazards and related management rules and measures, been able to read and apply the user manuals and to inform and instruct employees moving and (dis)assembling the aluminum rolling scaffolding about above mentioned risks and hazards.
  - Climbing materials should be in good condition and should be secured against falling over, slipping or excessive sagging;
  - Unsound climbing materials should be removed from the building site immediately;
  - Ladders, portable stairs and fixed stairways that have been set up should meet the requirements that have been established in the Working Conditions Decree (*ArboBesluit*);
  - Cherry pickers should be designed and set up in accordance with the instructions given in the Working Conditions Decree (*ArboBesluit*);
  - Lifts and similar lifting devices for passenger transport should meet and should regularly be tested in accordance with the legal requirements. Transporting people with a builder's hoist that is exclusively intended for goods transport is strictly forbidden.
- 10.3.11 Assembling Steel Constructions**
- 10.3.11.1 When assembling steel constructions, the rules for working high above the ground, using hoisting and lifting devices, as well as securing wall and floor openings should be observed men.
- 10.3.11.2 When assembling steel constructions of any size, the contractor or subcontractor should describe in a so-called assembly plan (perhaps as a part of an HSE plan), before the start of these activities, what measures he will take and facilities he will provide to perform this work in a safe manner. This assembly plan should be submitted by the contractor, subcontractor or (acting) authorised person to the building site management of the client on time before the start of the activities
- 10.3.12 Using Formwork and Temporary Support Structures**
- 10.3.12.1 When using formwork and temporary support structures, the legal requirements should be met. Also, when using and maintaining steel, adjustable metal struts, the greatest possible care should be taken.
- 10.3.12.2 Formwork and temporary support structures should be:
- a) soundly designed, giving consideration to all influences that (could) affect these structures and attention to the required safety factor;
  - b) put together in a sound manner using solid materials;

- c) safely set up/placed/mounted and safely removed or moved;
- d) soundly secured against unwanted movements.

10.3.12.3 Temporary support structures should be executed according to the design and calculations.

10.3.12.4 Temporary support structures, while under construction, and formwork, while bearing a load, should be regularly inspected for reliability in a safe manner.

10.3.12.5 Immediately after being taken down, used formwork material should be made free of all nails and set aside in a suitable location.

10.3.12.6 Defective components for temporary support structures should be removed from the building site immediately.

### 10.3.13 Manufacturing and Processing Elements for Assembly.

When manufacturing and processing elements to be used in assembly, the instructions given in Official Journal P117 should be followed.

### 10.3.14 Securing Wall and Floor Openings

10.3.14.1 All openings present in structures that:

- are located in a vertical or ascending surface, including the unsealed ends of floors, balconies, galleries and suchlike, or
- are located in a horizontal or nearly horizontal surface, should be secured in accordance with the instructions given in Working Conditions data sheet (*Arbo informatieblad*) AI-16. In departure from this, wall openings that present a danger of someone falling from a height of more than 0.50 of a metre (instead of 2.50 metres) should be effectively sealed off.

10.3.14.2 Bracket scaffolding should be designed and used - in concrete frame construction and in similar circumstances with other building methods - in accordance with the instructions given in the "Scaffolding Procedure".

10.3.14.3 In cases in which the presence of wall and floor openings present a danger of a person falling from a height or into the water and when the installation of wall and floor protections or sound scaffolding, platforms or landings is not possible, then this danger should be countered by using suitable harnesses with lines of sufficient length and strength or by stretching safety nets or suchlike (for the construction and the use of safety nets, see the instructions in the Working Conditions data sheet (*Arbo informatieblad*)).

10.3.14.4 Every (sub)contractor should always take the necessary measures with respect to closing floor openings and making wall openings safe and suchlike on his own work site, including the access roads, independent of the situation present at the start of the work or during the work. He should maintain these safety measures throughout his work period there.

10.3.14.5 If activities are performed by a (sub)contractor such that this creates or could present a danger for others, then this

contractor, subcontractor or (acting) authorised person should immediately take appropriate measures to ameliorate this. From the previous statement, it follows that each (sub)contractor should have access to sufficient and suitable warning and protection material and should install them on his own initiative.

*Note: Barricade tape that is used by the (sub)contractor should bear the name of the company that is using it so that it is always clear who is responsible for cordoning off an area.*

### 10.3.15 Working in Confined Spaces

10.3.15.1 When performing work in confined spaces, such as tanks, boiler rooms, sewers, pipe galleries and suchlike, the measures should be taken in accordance with the instructions given in the Working Conditions data sheet (*Arbo-informatieblad*).

Any work performed in an confined space is designated as being “high risk”, so that it should be handled in accordance with the procedure for “high risk” work permits and H&S Standard “*confined spaces*”;

- Prior to entering the confined space, a release measurement is taken for:
  - Oxygen level;
  - Lowest explosion limit;
  - Concentration (health) of hazardous substances in the air;
  - Heat load.
- At the entrance of the confined space stands (at least) a qualified confined space entry attendant:
  - EON employee: Possesses a SOS-SCC (*VOL-VCA*), VIC with additional certificate for confined spaces (dangers and control measures);
  - External employee: Possesses at least a Basic Safety – SCC (*Basisveiligheid – VCA*) with additional certificate for confined spaces (dangers and control measures). The confined space entry attendant and fireman on duty are permitted to be one and the same person, provided he is trained for both.  
The duties of the confined space entry attendant are:
    - Registering people that have been granted access to the confined space;
    - Maintaining sufficient communication;
    - Summoning the ERO organisation during disasters;
    - Registering people that have left the confined space.
- After being opened, confined spaces are immediately marked off using (for example) a marked red-white barrier tape and are marked as a confined space that may not be entered;
- The number of people that work in a confined space is limited to a minimum number;;
- The confined space is demonstrably secured in accordance with the work permits procedure (disconnection, blind flanges, Block and Bleed, labels, padlocks, etc.);
- The confined space is sufficiently ventilated (naturally or artificially) during the period in which worked is being performed so that the concentration of hazardous substances (dust, vapour or gas) always remains below the criteria of release measurements;
- The confined space is provided with independent lighting. If it does not have this, then the employee will have a properly working torch/flashlight;
- If breathing protection is necessary, independent breathing protection should be used. If a risk of exposure to dust is the only possible risk, then the use of a dust mask is acceptable

10.3.15.2 When using electrical equipment and electric lighting in confined spaces, the regulations that are recorded in 10.2.3.5 up to and including 2.3.7 should be observed.

10.3.15.3 Working with oxy-gas burners in confined spaces should be done in accordance with the instructions given in the Working Conditions Policy regulations (*ArboBeleids-regels*).

- The organisation will provide suitable fire extinguishing agents for welding, grinding and cutting activities, open fire or when a risk of sparks exists.

### 10.3.16 Performing Welding and Cutting Activities

10.3.16.1 Gas cylinders should be set up safely and sturdily and, if possible, in an upright position (in any case, the top of the gas cylinder should be higher than the bottom). They must be protected from falling objects and may not be set up in warm places. Welding and cutting activities are designated as being “high risk”, which means they should be handled in accordance with the procedure for “high risk” work permits;

10.3.16.2 The key should be present on the cut-off valve of acetylene cylinders. A flame arrestor should be mounted between the burner and cylinder. For autogenic welding or cutting activities, a properly working fire extinguisher must be present while at work.

10.3.16.3 The person responsible for the performance of the welding or cutting activities should take measures and continue them to ensure that falling or flying sparks or glowing metal particles cannot cause a fire.

10.3.16.4 Acetylene, oxygen and other gas lines may not be laid on the ground or work floors without protection. They should, as much as possible, be routed in a safe manner and at a sufficient height above the ground or the work floors.

10.3.16.5 Welding and cutting activities should be registered on the work permit as ‘hot work’ and the relevant precautionary measures should be taken. The following points for attention are also important:

- Surface conservation layers and rust are often damaging and should therefore first be removed. This pertains to things such as connections containing brass, zinc or lead. Oil and grease should also be removed;
- Workpieces should be connected with the clamp and have good conductivity. The welding tongs may not be clamped under the arm. The clamp should be placed as close as possible to the welded connection to be made;
- When using welding methods with a high radiation intensity, always place a welding screen.
- After finishing the work, all supply lines must be shut off, not only at the work point, but also at the central points;
- Portable welding units should also be shut off once working hours have ended and should be put away where they are clearly visible and accessible. The hoses should be rolled up.
- After finishing the work with electric welding equipment and during breaks, the main switch on the welding transformer should be switched off.

10.3.16.6 Acetylene, oxygen and other gas cylinders may not be stored in warehouses, sheds and suchlike. They should

be set up at a distance of at least five metres from these structures and at a clearly visible and always easy-to-access, reachable place in the open air - but protected from direct sunlight (see 010.2.2).

- 10.3.16.7 When using an electric welding unit in situations as referred to in 010.2.3.4 and 010.23.5, the following requirements pertain to equipment:
- Electric tools and exhaust equipment should preferably be double-insulated or equipped with a safe voltage of no more than 50 V of alternating current or 120 V of direct current;
  - Welding equipment should have a voltage-lowering relay;
  - Electrical units should be inspected regularly, in any case at least once a year, to verify that they work properly and safely.
- 10.3.16.8 Inside the industrial buildings, the gas cylinders for welding and cutting, among other things, should be transported and set up in so-called cylinder trolleys (welding trolleys) that are provided with a properly working fire extinguisher. During activities, these welding trolleys should be clearly visible and accessible and, when set up high, they should be set up on a loading platform that is connected to the lift entrance. Placing gas cylinders in the lift and simultaneously transporting people in the lift is forbidden.
- 10.3.16.9 When the work activities are interrupted, the gas cylinders should be shut off and the pressure released from the hoses and the hoses rolled up;
- 10.3.16.10 After the work activities are finished, the welding trolleys should be removed from the industrial buildings as soon as possible and set up outside in a safe place.
- 10.3.16.11 Sufficient precautionary measures should be taken to prevent the outbreak of fire:
- Suitable fire extinguishing agents should be present during welding and cutting activities which have been brought along by the party performing these work activities;
  - The workplace should be screened off (if possible) using fire-resistant blankets or a steel plate.
  - The surroundings should be cleared of flammable material;
  - A fireman is on duty and present who possesses the firefighter-specific certificates;
  - One hour and three hours after the end of the activities an inspection round should be made in order to assess whether there are any smouldering particles that remain behind.
- 10.3.16.12 The employee who is engaged with welding and cutting activities should be sufficiently protected:
- Ensure there is good ventilation or an exhaust. Depending on the welding electrode used, the type of shielding gas and the welding method used, measures should be taken to remove welding fumes and other harmful gases and vapours. This should preferably be done by means of a weld fume extractor or exhaust at the source in combination with a sufficient supply of fresh air in the space;

- Use impermeable work cloths such as leather trousers or jacket, fireproof overalls and welding gloves;
- Persons in the vicinity of the welding site or who are assisting with the welding should wear welding goggles;
- Use the correct type of welder's mask or a combination fresh compressed air mantle or a special filter mask when no good ventilation or exhaust is possible.

### 10.3.17 Performing Demolition Activities

- 10.3.17.1 When tearing down, dismantling, pulling down or in any other way demolishing buildings, edifices, installations, hydraulic engineering works and other artworks or parts of these objects, all measures should be taken to prevent people from falling and stumbling, or to prevent people from being hit by falling objects.
- 10.3.17.2 Using explosives at locations of the client is only permitted if the client grants written permission to do so.
- 10.3.17.3 The removal of insulation fibres that are harmful to human health (including asbestos, mineral wool, ceramic fibres) and materials containing these fibres or contaminated with these fibres should be done in accordance with the relevant articles of the "Asbestos Decree of the Working Conditions Act" (*Asbestbesluit Arbeidsomstandighedenwet*) and the "Occupational Hygiene Strategy" (*Arbeidshygiënische strategie*).
- 10.3.17.4 When performing demolition activities of any scope, the contractor or subcontractor should describe in a demolition plan (perhaps as a part of a Working Conditions building risk-description and safety plan [*Arbo-object-plan*]), before the start of these activities, what measures he will take and facilities he will provide to perform this work in a safe manner. This demolition plan should be submitted by the contractor, subcontractor or (acting) authorised person to the building site management of the client on time before the start of the activities.

### 10.3.18 Transporting and Working with Hazardous Substances

- 10.3.18.1 Transporting hazardous substances over the building site should be done in accordance with the "Regulations on transporting hazardous substances over land" (*Reglement vervoer over land van gevaarlijke stoffen* (V.L.G.)).
- 10.3.18.2 According to Article 23 of the "Safety Decree for Factories or Workplaces" (*Veiligheidsbesluit Fabrieken of Werkplaatsen*), when working with hazardous substances such measures should be taken to prevent these substances from:
- catching fire or exploding;
  - unintentionally escaping or spreading;
  - unintentionally forming a combustible or explosive mixture with the air;
  - unintentionally coming into contact with oxidising materials.
- 10.3.18.3 When using hazardous substances, in addition to complying with the legal provisions, the instructions given in the relevant official journals should be followed.
- 10.3.18.4 Using sources of radiation on the building site is only permitted if the conditions stated in 2.5.19 are met.

- 10.3.18.5 Activities involving sources of radiation should be performed at a time at which no one is within close proximity to the place where these activities must be performed.
- 10.3.18.6 When activities involving a danger of radiation are performed, the danger zone – including the access points to the pipes and channels and suchlike located within it – should be marked by barriers and warning signs specially intended for this purpose (in accordance with the Decree on Health and Safety Warning Signs [*Besluit veiligheids- en gezondheidssignalering*]). No persons may enter this zone other than those that are charged with performing these activities
- 10.3.18.7 The use of explosive substances and objects loaded with explosive substances on the building site is forbidden, with the exception of the following substances and objects:
- explosives used for demolition activities, provided: the client grants permission for this and, when using these explosives, the instructions given in the Official Journal P 137 are followed;
  - cartridges for nail guns and cable clamp systems, provided: permission is granted by the client for this.
- 10.3.18.8 Using and storing building and auxiliary materials and products on the building site in which fibres that are harmful to human health are incorporated (including asbestos, mineral wool, ceramic fibres) is forbidden.
- 10.3.18.9 When handling paint, solvents and thinners, exposure to vapours, gases and potential fire danger should be avoided.
- 10.3.18.10 When handling large amounts of hazardous substances, the contractor, subcontractor or (acting) authorised person should describe in a Working Conditions building risk-description and safety plan (*Arbo-objectplan*), before the start of these activities, what risks are attached to these activities and what measures he will take and facilities he will provide to perform this work in a safe manner. This *Arbo-objectplan* should be submitted by the contractor, subcontractor or (acting) authorised person to the building site management of the client on time before the start of the activities.