



# BCC regulations

Brightlands Chemelot Campus

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## Introduction

The Brightlands Chemelot Campus (BCC) is a place for research on chemistry and materials. It is home to offices, labs, testing factories, parking areas and roads, green areas and technical infrastructure, among other things. It is managed by the BCC organisation. In addition, the Campus also offers supporting services and facilities. Everything on BCC is focused on high-quality research and a stimulating environment, under the Brightlands flag.

You are part of an exciting international community of professionals and scientists who work for various organizations: R&D departments of major chemical companies; SMEs; startups; higher education and research institutes.

Within this community, the rules and regulations described in this document are focused on preventing undesired incidents so that the entire community can work smoothly and efficiently. It is in everyone's interests to be aware of these rules, and to adhere to them.

The regulations are based on Dutch legislation and regulation, and the regulations of the Chemelot site. They are focused on managing the risks related to Safety, Health, Environment and Security. (Abbreviated to SHE: *Safety, Health, Environment. The Dutch version of the BCC regulations is always leading.*)

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## 1 Introduction

### 1.1 What, why, from and for whom?

This document provides the requirements and the code of behaviour which apply on the Brightlands Chemelot Campus (BCC). These requirements focus on preventing incidents and calamities that compromise safety, health, environment and security. The rules are part of the rental agreement between Brightlands and the tenant. They are compiled by the SHE department at BCC in consultation with (representatives of) the tenants, the *SHE&S consultation*. They are enforced by the Chemelot Site Policy Board, Brightlands Chemelot Campus Board and the Brightlands Chemelot Campus Community Board, where all tenants are represented.

Everyone on the Campus must adhere to these rules via the rental agreement or equivalent contracts (e.g. services providers). BCC closes rental agreements with tenants. These agreements show in close detail what is rented (offices, labs, halls, etc.) and under which conditions. One of the conditions of the tenant is to inform and instruct his staff members, students, suppliers, clients, visitors etc., about these rules so they are followed and adhered.

### 1.2 Principles and context

The rules set out in these regulations are the rules of the Chemelot site and the national laws and regulations of the Dutch State. The aim of the legislation and SHE provisions is to identify and manage risks by suitable measures. Together with leadership, assurance, demonstrability, and constant improvement, among other things, they make up some of the principles of good management.

Everyone on the Campus (staff members, tenants, companies, visitors) is part of a community. These rules are essential to maintain the community and allow it to

blossom. Imagine that your neighbour encounters an incident that causes damage to your installations or endangers our environmental permit. We do not want to risk our *License to Operate*.

The key is therefore 'look before you leap' and 'better safe than sorry'.

The expectation is to work in a professional way: a way that is characterized by effective preparation, meticulous implementation and tangible results. Good preparation means an analysis of the aims, the context and secondary conditions, and an integral planning. The implementation not only includes the actual work, but also communication between those who are directly involved. Achieving these results means, in addition to determining the achieved goal, also providing information about adhering to the secondary conditions. These three steps are essential for external use (taking responsibility) and internal use (learning).

The aim is to keep the risks of all activities as low as possible. *As Low As Reasonably Practicable*, ALARP.

### 1.3 Monitoring and enforcement

The following requirements and rules are critical to the success of the Campus in the short- and long term. Monitoring enforcement takes place by inspections and audits, so that it becomes more apparent where improvements are possible. The annual inspection and audit plan is issued by BCC SHE to the Campus residents on behalf of the Site Manager.

If required, enforcing actions are performed by the BCC Site Manager. The processing takes place in adherence to the guideline "Compliance policy with regards to regulations".

## 1.4 Work area and exemption

The requirements and rules described below are the minimum requirements that apply to the entire Campus grounds. After submitting a substantiated written request, the [Site Manager](#) can grant an exemption.

## 1.5 Announcement and distribution

The document and further supporting information can be found on the Brightlands website. An adjusted version is published twice a year (1 January and 1 July) on the Brightlands website.

## 1.6 Environmental permit

The government sees the entire Chemelot site as one setup and has issued one permit on the grounds of the Environmental Management Act (and the Environmental Permitting (General Provisions) Act or WABO) to Chemelot Site Permit BV (CSP), the formal permit holder. This permit specifies i.a. the maximum emissions, the requirements and reports. The Chemelot Site Permit consists out of a CSP BRZO<sup>1</sup> safety report, a CSP management system, a Chemelot company emergency plan and a disaster organization. The CSP makes agreements with the companies that operate and use the infrastructure on the Chemelot site. CSP also evaluates compliance with these agreements.

BCC has - just like other site users - its own partial permit according to the Environmental Management Act and the Environmental Permitting (General Provisions) Act (WM/WABO) and is legally liable for compliance. These requirements are presented to the tenants by the rental agreements. The permit functions as a general framework on the

Campus. The total activities must remain within this framework.

## 1.7 Working Conditions Act (Arbowet)

The Working condition regulation (Arbowet) organizes the safety and health aspects of working attitudes. The employer and his employees are central to this. The Working Conditions Act also states that employers must work together regarding health- and safety aspects.

The heart of the Working Conditions Act consists out of:

- (1) Inventory and evaluation of risks (RIE)
- (2) Instituting measures to minimize risks
- (3) Instructing and communicating about the safest working method
- (4) Cooperation between employer and employees and between companies and firms when they work close with each other

Over the years, many risks and best practices have been developed and formulated.

The requirements in this BCC regulation describe the *best practices* for occupational risks, specific for the Campus. These are enforced by the Brightlands Chemelot Campus Board and the Brightlands Chemelot Campus Community Board where all tenants are represented. BCC landlords are responsible for the implementation of these requirements.

## 1.8 Security

Security concerns the preventing of incidents and occurrences due to intentionally harmful activities. This can be categorized into site security (arson, bomb attacks, protesters etc.), personal security (bullying and harassment, theft etc.) and information security (data

<sup>1</sup> BRZO = Major Accidents (Risks) Decree. The Dutch implementation of the Post Seveso Guideline.

security). Security is an integral part of the following regulations.

BCC is completely separated from the Chemelot Industrial Park by a fence with turnstiles/tourniquets which meet the requirements for a first line perimeter fence; access at the gate does not meet these requirements. The Campus has placed the security borders at the level of the buildings (only accessible with an authorized pass or after reporting to the reception). The access control of the Campus is therefore only focused on Safety and registration, not on security. Sitech Services Security provides monitoring outside the buildings on the perimeter fences and enforces compliance with the access rules.

In an emergency situation the first fence around BCC itself can be closed from the Central incident room ACC of Park Services by closing the fence before gate 2. A number of BCC buildings are outside this first line perimeter fence around the Campus (Van Iterson building 124-37, ARLANXEO building 111-160, Lonza Netherlands/InsciTe building 111-14/17/18).

For security reasons, residents/visitors may be requested to show the BCC pass for legitimation.

### 1.9 Reading guide

To increase the legibility and accessibility, the rules have been clearly and succinctly formulated by adding referrals to specialists and *best practices* see chapter 7. Questions, comments or suggestions for improvements are welcomed by the BCC [SHE department](#).

## 2 Safety, health and environment

### 2.1 Objective

The objectives for Safety, health, environment (*SHE management*) in the Campus community (incl. tenants, visitors and contractors) are:

- Achieving an accident-free and incident-free working environment
- Preventing all occupational-related illnesses and health problems caused by activities at the Chemelot site
- Constantly evaluating and improving the way of working and services in order that these will remain safe and acceptable for staff members, clients and the surrounding area, so that the 'License to Operate' remains intact
- Preventing environmental damage

These objectives apply to everybody on the Campus, regardless of status. To achieve these objectives, BCC has developed, in close consultation with the tenants, a SHE management system. This system describes how BCC is organized and functions at both strategic as well as operational level. This document including the requirements is limited to the agreements at operational level.

### 2.2 Functions

The most important functions at operational level are described.

The **Landlord** carries out the daily management of the spaces, buildings and installations which are allocated to the tenant/owner and occupied by him/her. This includes:

- Making agreements with residents, visitors and companies about the tasks, authorities and responsibilities concerning safety, health, environment (SHE)

- Identifying the SHE risks associated with the activities carried out within the landlord area
- Taking suitable measures to reduce the SHE risks to a minimum
- Reporting irregular cases to the Duty Officer Point of contact for the Duty Officer / Day Officer if work needs to be carried out on building-related installations in the landlord area
- Administration of the chemicals present in the landlord area
- Functions as Head of Commissioning (CO) with work permits in his landlord area and/or to his installations
- Managing Safety Health and Environment (SHE) documentation of building, utilities, installations and compilations (manuals, drawings, test reports, PED (Pressure Equipment Directive) statements etc.)
- Order, tidiness and safety signaling
- Consultation and informing Emergency Response staff in their building

Note that the BCC [rental administration](#) has an overview list of landlords.

The **Duty Officer** (CvD) acts on behalf of the Site Manager as the landlord of installations, buildings, roads & grounds with general functions and non-rented areas. The Duty Officer is a staff member of the Operational Centre that operates 24/7. The key tasks include:

- Receiving and instructing company staff members about safety rules and provisions
- Creating work permits (Head of Commissioning). Daily closure of the buildings around 8 p.m. and opening around 7 a.m. This is done by Park Protection Services
- Acting as point of contact for all occurrences, incidents and accidents
- Coordination and adequate response in case of incidents. Invoking the support of Chemelot services of the Alert & Care Centre (ACC)
- Delivering reports of unusual occurrences to the authorities and Chemelot Site Permit

BV via Park Services Central Incident Room (CMPS ACC)

- Managing waste streams and gas canisters
- Registration, management and monitoring of Campus residents via Safetel (solitary work) Authorized person with regards to company access passes and Permit
- Supervisor of contractors

All accidents and occurrences with (possible) injury and occurrences and unusual incidents with possible consequences for the environment must be reported to the Duty Officer in the Operational Center.

	Mobile	Land line
Alarm	+31622904304	+31464764444
Non-urgent	+31651425015	+31464767182

The **Day Officer**:

- Receiving and instructing company staff members about security rules and provisions
- Issuing work permits

In relation to a work permit, the **Head of Commissioning** is responsible for whether a work permit is required or not. On behalf of the receiving department, the Head of Commissioning approves and signs the conditions as are determined in the work permit, including the work to be carried out. This is generally the Day Officer, Duty Officer or the Landlord Head of Commissioning. The **Direct Head of Commissioning** is the functionary which consents locally prior to receiving the work. The Direct Head of Commissioning checks whether all prescribed measures are taken and whether the working environment is safe.

The SOS-SCC diploma (Safety for Operational Supervisors - Safety, health, environment checklist contractor; in Dutch: "VCA-Vol") is mandatory for all (Direct) Heads of Commissioning with an exception for the Direct Heads of Commissioning in the lab rooms of

the companies and institutions present on the Campus. An alternative for SOS - SCC (in Dutch: VCA-VOL) is the Basic – SCC diploma ( in Dutch: “VCA basis” ) supplemented with the training “operational management elements”.

The **Head of Execution** and the **Direct Head of Execution** with a work permit are the executing party which is not common with the local risks, but common with the type of the work. They take measures so that the work can be carried out safely. Generally, the Head of Execution and the Direct Heads of Execution are company staff members. The SOS-SCC diploma (Safety for Operational Supervisors - Safety, health, environment checklist contractor; in Dutch: “VCA-Vol”) is mandatory for all Heads of Execution. The Basic – SCC diploma (in Dutch “VCA-basis”) is mandatory for all Direct Heads of Execution.

The **BCC SHE department** is responsible for the Safety, Health and Environmental Management system:

- Monitors external developments in laws and regulations and assesses the relevance for BCC
- Monitors compliance with permits and the Safety, health, environment management system
- Advises Campus residents about managing risks; compliance with BCC requirements and laws and regulations
- Consults with internal and external interested stakeholders
- Reports to Site Manager

The **Site Manager** is manager of BCC on behalf of the CEO:

- Final responsible person for Safety Health and Environment (SHE) on the Campus
- Reports to CSP and the authorities

### 2.3 Reporting accidents and (environmental) incidents

The performances on Safety, health, environment (VGM) of Chemelot and - therefore also of the Campus - are published each month and contain i.a. the amount of accidents resulting in absenteeism, adjusted work and medical treatment. This is the reason why it is important that all accidents are registered.

The Environmental Management regulation, Soil conservation regulation and the Nuclear Energy regulation also obligations to report complaints, incidents and permit violations to the authorities. The Duty Officer takes care of these reports in consultation with the landlord where the incident took place.

### 2.4 Contractors

On BCC, contractors are frequently at work.

Contractors are suppliers of BCC. This group needs special attention for multiple reasons. Firstly, their work often involves an increased risk (working at heights, working with installations, industrial cleaning). Secondly, they do not stay for a long period on the Campus and are therefore unaware of the applied safety precautions. Thirdly, their work disturbs the normal way of working.

Contractors that carry out work involving and increased risk are required to possess a **SHE Checklist Contractors (SCC\***; in Dutch: VCA\*) or **SCC\*\* (VCA\*\*)** certificate. Performing works with an increased risk need to meet the following disciplines (both engineering as well as implementation): mechanical engineering, electrical engineering, instrumentation and process control, civil engineering, assembly work, insulation work, scaffolding, industrial cleaning, hot blasting, painting, conservation, vertical transport and demolition.

SCC\* is required for monodisciplinary contracts with a smaller scope. SCC\*\* is required for

multi-disciplinary works with a larger scope. SSC-certificates are organized by the Foundation Cooperation for Safety (Stichting samenwerken Voor Veiligheid or [SSVV](#)). SCC certification also includes training and instructions for various high-risk tasks such as scaffolding construction, using mobile work platforms, driving forklift trucks. The Foundation Cooperation for Safety course handbook and the Security passport can be found [here](#).

## 2.5 Training and instruction

### 2.5.1 SCC (VCA) contractor personnel

Employees of SHE Checklist Contractors (SCC) obligated contractors have a Basic -SCC or SOS - SCC diploma. The first is for executive personnel. SOS - SCC is for supervising staff personnel. 1.1.1 In practice, it is possible that employees of contractors who have to carry out work on the Chemelot Campus are not in possession of a SCC certificate, for example because they come from abroad or work in an industry in which SCC certification is not customary. The CCP "[Application SCC duty](#)" provides guidelines on how to deal with the SCC duty in these cases.

### 2.5.2 Gate instruction

Everyone, except for visitors to the Campus, adhere to gate instruction. Also refer to the chapter on [Site access](#).

New staff members are demonstrably instructed by their employer or supervisor about the most important dangers and provisions, the importance of care for Safety, health, environment (VGM) for the entire Brightlands Chemelot Campus. The [safety chart](#) can be used for this. In addition, there is an [onboarding program](#) that also supports the introduction of new staff members on the Safety, Health and Environmental aspects. Every contractor who carries out work for third stakeholders must have the security chart.

Instructions on using the security chart can only be supplied by the Duty Officer (CvD) or the Day Officer.

### 2.5.3 Emergency response officers (ERO)

Emergency response officers (ERO) are located close to all workplaces. The workplaces of emergency response officers are recognizable by the green signs with a white helmet and cross. They respond to small problems and accidents; if staff members become unwell and they check areas after an evacuation (*floor sweeping*). They know how to respond to an alarm or evacuation.

At several locations on the Campus there are portable extinguishing units installed to stop a started fire. Be aware that portable extinguishers are ineffective and dangerous in the hands of inexperienced users. That is why one must sound the alarm before using them. The training course for the in-house emergency response staff also includes the instruction on small fire extinguishers.

The [BCC SHE department](#) coordinates the training and exercises for the emergency response officers.

### 2.5.4 Last Minute Risk Assessment

People who work in high-risk situations are demonstrably instructed to use the Last Minute Risk Assessment in order to start the work safely. The instruction can be found on the [Chemelot internet](#). This instruction is also provided by the Day Officer and signed on the security chart or in the safety card. A list of LMRA Instructors is available with the Duty Officer.

The BCC [SHE department](#) can provide a train-the-trainer course upon request.

### 2.5.5 Connecting gas canisters

Staff members who have successfully completed training for connecting and disconnecting gas canisters, are permitted to carry out these actions.

The BCC [SHE department](#) has more information.

### 2.5.6 Operational management elements

This course instructs the Work permits procedure and tools such as LoToTo, Job Safety Analysis (JSA) and, handing over installations and areas. It concerns explanation of the procedure and the training is coordinated by the BCC SHE department.

The operational management elements course in combination with a Basic – SCC (VCA basis) certificate is required to fulfill the role of Direct Head of Commissioning (DCO) in the lab rooms of the companies and institutes located on the Campus.

## 2.6 Brightlands Campus practices

### 2.6.1 Managing SHE risks

Managing SHE risks forms the basis for defining the guiding principles (see 1.2) and function roles (see 2.2). Risks are assessed in advance and management measures are taken. Existing measures are usually sufficient, as documented in instructions, drawings and manuals. When changes are made, it is required to assess the risks of the new situation and the changes. After completion, the results are recorded in logbooks, statements, forms etc. The purpose is on the one hand assurance and on the other a baseline measurement for review and improvement.

There is also an external objective: SHE annual report for interested parties and of retaining the *License to Operate*.

### 2.6.2 SHE risks in the event of changes

The term *Management of Change* is used in the context of changes to the organisation, installations, equipment and facilities (e.g. in change projects and new building projects).

Normally there are then two integral<sup>2</sup> decision moments. The requirements and secondary conditions are defined at the start. Risk reducing measures and residual risks are assessed shortly before commencing use.

If the changes can have an effect outside the area of the landlord, or can cause a potentially fatal accident scenario then the changes be presented to the Campus Acceptation Commission.

If changes involve transferring (parts of) installations or equipment to others (waste, storage, sale), then they have to be cleaned first, so that no materials that might pose a hazard to people or the environment are present. The [cleaning form](#) ensures that cleaning occurs accurately.

The Brightlands Chemelot Campus Practices [MoC & Acceptation Committee](#) provide more information. Other questions can be put to the BCC [SHE department](#).

### 2.6.3 Work permits

The work permits safeguard SHE measures in the event of specific location or work related risks.

By means of the permit, information exchange takes place between the commissioning party and the executing party about the local risks, work related risks and how both can be optimally managed.

There are two types of permits. A work permit is required for high-risk work. A check and written determination of the permission on the so-called transfer form is sufficient for moderate-risk work.

The procedure can be found [here](#). You can direct further questions to the Day Officer.

Making a work permit requires a good assessment, thorough preparation and

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<sup>2</sup> Integral = incorporating input from all disciplines.

planning. For the preparation of work permits where the Operational Center BCC has the role of Head of Commissioning, the following procedure applies:

- From Monday to Wednesday and Friday, the Day Officer has consultation hours between 10:00 and 12:00 in building 122-30 room 9a. During this consultation hour, work permits can be requested and / or questions can be asked. Outside these times, this is done by appointment.
- The application for the preparation of the work permits must be submitted at least 3 working days in advance to the execution.
- The applicant fills in a [request work permit](#) as completely as possible in accordance with his own insights.
- The applicant ensures that the necessary documents are handed over to the Day Officer during the meeting. (If applicable, a signed copy of the V & G plan, BOSANIS report, dig / ground info, flushing plan, etc.)
- The Day Officer ensures that the draft work permit is ready for approval at the agreed date / time. (The work permit is approved by the Head of Execution carrying out the work )
- The client ensures that executive persons are in possession of the correct instructions such as LMRA, SCC (VCA) etc.
- The required additional instruction such as safety instructions for the Campus, JSA's are given by the Duty Officer.

#### 2.6.4 Lock-out Tag-out Try-out

The “Lock-out, tag-out, try-out (LoToTo)” Practice is focused on protecting people who are carrying out on installations or equipment, which are supplied with energy sources or that can contain stored energy. Persons are

protected by a physical protection. LOTOTO prevents unintended movements and/or the unintended release of energy and/or dangerous materials.

Additional information can be found in the Chemelot [LoToTo Practice](#).

#### 2.6.5 Life saving rules

On the Chemelot site –and therefore also on the Brightlands Campus - [12 Life Saving Rules](#) are applied. These rules give unambiguous requirements to be able to work safely; concerning:

- **Permission:**
  - Valid work permits
  - Ensure you possess the correct permissions before you open a pipe
  - Follow the Management of Change procedure
  - Ensure you have the correct permission before you turn off or bypass critical safety equipment or security measures
- **Protection:**
  - Test the quality of the air in a closed space prior to entering the room
  - Protect yourself against falls when you work at height
  - Hoisting and lifting: stay out of range of a potentially falling load
  - Wear a safety belt
- **Aware and responsible behaviour:**
  - No alcohol or drugs permitted at work  
Smoking is only permitted in designated areas
  - Plan your journey and stick to the plan (advice concerning travel outside the BCC)
  - Drive responsibly, avoid using your phone while driving, and stick to the speed limit
  - Ensure that machines and equipment are safe according to the LOTO(TO) procedure prior to work at them

## 2.7 Last Minute Risk Assessment

The Last Minute Risk Assessment (LMRA) teaches contractors to carry out a quick check prior to the work with increased risk whether:

- (1) All provisions are in good condition and are present,
- (2) Other prescribed measures are clear and sufficient and
- (3) Whether there are any more other visible risks present.

The LMRA is implemented based on the LMRA card, directly prior before starting the work by the staff who will carry out the work. If questions are answered with “No”, then the work is not permitted to start until this situation is resolved and the question can be answered with a “Yes”.

Additional information can be found on the Chemelot [LMRA website](#).

## 2.8 Electrotechnical safety

The Brightlands Chemelot Campus follows the NEN3140 for the operational management of low-voltage electrical installations at Brightlands Chemelot Campus.

On the NEN3140, the EIB (Electrotechnical Instructions Brightlands) and the GEI (Generic Electrotechnical Instructions) apply.

The [EIB](#) (Electrotechnical Instructions Brightlands) refer to the paragraph from the NEN3140 to which it relates.

The [GEI](#) (Generic Electrotechnical Instructions) are specific additional BCC instructions.

For work in the high-voltage installations of Brightlands Chemelot Campus BCC follows the NEN3840 without further additions.

The above NEN standards and additions regulate, among other things, various powers and activities: switching operations, commissioning, electrical work, inspections, etc.

Private devices, e.g. household equipment, TVs, transmitting, receiving and playback equipment are permitted, provided they meet the same safety requirements as for other electrical equipment, as described in NEN-3140, EIB and GEI.

The complete Electrical Instructions Brightlands and GEI (Generic Electrotechnical Instructions) can be found as an appendix to the Brightlands Chemelot Campus regulations. You can ask questions about this to the BCC person responsible for the electrical installations.

## 2.9 Traffic and transport

The Traffic Regulations and Road Traffic Signs Code (RVV 1990) apply throughout the entire Campus grounds. The maximum speed limit is 30 km/h. Parking is only allowed in the indicated places or indicated as such in chapter 5.3 “Vehicle access”. On the entire Campus 'reverse parking' is mandatory on parking spaces that are suitable for it. Exceptions to the obligation are the parking garages. In the parking garage under the Center Court G122-200, reverse parking is prohibited because of the 'fishbone' parking compartment layout. In the parking garage building 180 reverse parking is not mandatory. Suppliers are provided with a day pass from reception, a [‘safety instruction drivers’ card](#) and a security pass. Truck drivers who frequently visit the Campus, but do not speak or understand Dutch arrive on the basis of the regular site procedure via Gate 1 on the Chemelot Industrial Park to the Campus via the north gate (by the P5 parking area) or the south gate.

For questions please contact the [infrastructure property manager](#).

The transport of chemicals on public roads is subjected to a large number of legal stipulations. This includes sending samples,

pilot lots etc. BCC has hired the expertise of an [expert](#) in this field via Sitech Services.

## 2.10 Utilities

BCC supplies various utilities: electricity; compressed air; measuring air; nitrogen; various types of water; steam; natural gas and special gasses. For delivery requests, questions, comments and complaints, please contact the [Brightlands Service Desk](#), tel. +31889995777.

### 2.10.1 Safety-critical installations

The Campus has a number of safety-critical installations. They are managed by the Property Manager of the building (accessible via the Service Desk). Work on, or close to, these systems may cause risks and disturbances. That is why consultation and agreements between the tenant, the Property Manager and the [Operational Center Brightlands/Duty Officer](#) are required. These systems include:

- **Building-related**
  - Electricity earthen systems and lightning conduction systems
  - Access to roofs and fall protection measures
  - Asbestos that is permanently incorporated in the building structure
  - Hoist installations that are part of the building structure
  - Fire and smoke partitions
  - Air treatment systems
  - Confined spaces
  - Elevators
  - Escape routes / emergency doors / emergency hatches
- **Emergency and fire provisions**
  - Fire extinguishers
  - Fire alarm systems
  - Public announcement systems
  - Emergency lighting

- Reasonably airtight rooms (RDR; toxic shelters)
- **Labs and chemical handling facilities**
  - ATEX zones around pipes
  - Chemical storage in buildings: Cupboards & Chemical lockers
  - Legionella control
  - Emergency eyewash facilities and – showers
  - Natural gas reduction stations
  - Fume chamber, incl. extraction fans
  - Mechanical & Instrumental safety provisions
  - Watertight Leak trays –floors
  - Media containing pipes in pipe racks and in buildings

## 2.11 Overtime and solitary work

Solitary work is possible if no-one else is in the immediate proximity. Such work has an increased risk. Solitary work in lab areas and mini plant installations is not permitted without Safetel monitoring. Interns and temporary staff members are not permitted to work solitarily.

At the [Operational Center Brightlands/Duty Officer](#), personal monitoring equipment ('Safetel') can be borrowed which can be used to remotely monitor someone working).

Working outside regular work hours (7 a.m. - 8 p.m.) is permitted after reporting to the [Operational Center Brightlands/Duty Officer](#) (building 30, tel. +31 65 14 25015).

## 2.12 Zones with explosion hazards

An explosion hazard may exist near pipes containing flammable and explosive substances. In these so-called ATEX zones, electrical installations and equipment and other items are subject to special provisions. These zones are determined in accordance

with NPR 7910 and determined in Explosion Safety Documents.

Changes to Explosion Safety Documents and ATEX zoning must first be submitted to the BCC ATEX Committee for approval. This committee evaluates the quality of the reports according to the NPR7910 on behalf of the BCC community. The Service Desk & Property Managers manage these documents.

### 2.13 Smoking, alcohol and drugs

Regarding safety and health, no smoking is permitted on campus (including parking areas and access roads). This also applies to the use of the so-called E-cigarette.

If a tenant has provided an approved smoking area within his own landlord area, smoking is only allowed in this designated area for people who have access to his rental compartment.

Alcoholic drinks and drugs are not permitted on Campus. It is not permitted to be under the influence of alcohol or other drugs.

### 2.14 Legionella prevention

Fire hose reels, eyewash facilities and emergency showers are sealed. They are part of the building facilities and are managed by BCC. If these provisions are used in emergencies, then those involved (victims, bystanders) must report that use to the ACC first aid room so that possible Legionella infections can be promptly identified.

### 2.15 Pressure equipment

Equipment (containers, pipes, installation parts etc.) with a maximum permissible overpressure of 0.5 bar or more come under the European Guideline for pressure equipment Guideline 97/23/EG, also known as the *Pressure Equipment Directive (PED)*. The landlord manages the mandatory documents (construction files, approval norms, certificates

etc.). Additional questions can be addressed to the [PED experts](#).

#### 2.15.1 Gas canisters

Gas canisters are solely situated in the appropriate cupboards and recesses, outside the work place or lab. The Site Manager gives permission for placing gas canisters in the lab room after approval by the Acceptation Committee in response to a substantiated request. Use the following [‘Release form for placing gas canisters’](#) to request an approval. The landlord is responsible for the registration, exemption and prompt periodic approval testing of all gas canisters under their management.

All gas canisters on the Campus are registered in CISPro. You must also consider the legal mandatory approval regime for pressure units.

People who have successfully completed the ‘connect and disconnect gas canisters instruction’ can carry out these actions.

Exemption is not required for gas canisters on welding carts, propane canisters (‘camping gas’), PA units and fire extinguishers in the work areas or labs.

#### 2.15.2 Pressure reducing valves

The assembly of pressure reducing valves are reserved for people who have successfully received the instruction for working with pressure reducing valves.

The manager of the gas mains and pressure equipment will be happy to enlighten you further.

### 2.16 Nuclear Energy Act permit

The Brightlands Chemelot Campus is a signatory to the location-wide complex permit in the context of the Nuclear Energy Act. This permit is intended for the application of (natural) radioactive material and X-ray units by all residents on the Campus.

Supervision of the use of (natural) radioactive materials and/or X-ray units within the partial permit has been assigned to the Committee for Management of Radioactive Substances (Beheer RAS). Additional information can be requested from the [General Coordinating Radiation Expert](#) of Chemelot Site Permit (CSP) BV.

Each new application or change in a current application of a radioactive source or X-ray unit must be submitted to “Beheer RAS” by the landlord. Only after “Beheer RAS” has provided written permission can the (changes to the) application be implemented, under the conditions determined by “Beheer RAS”.

The disposal of radioactive materials, equipment, units, measuring instruments, ionization smoke alarms (including exempt alarms) which include radioactive sources, X-ray units etc. must occur in consultation with “Beheer RAS”.

In areas that may contain radioactive sources and/or X-ray units, the line manager of the landlord must be instructed via “Beheer RAS” with regard to the applicable regulations governing ionizing radiation. Personnel operating equipment that contains radioactive sources and/or X-ray units should also be instructed about the use of such equipment via “Beheer RAS”.

## 3 Your safety

### 3.1 Operational Centre

The Operational Centre in Building 30 is the operating base of the Duty Officer and the Day Officer. This is the central point for day-to-day preventive and corrective safety management

on the Campus. This post is manned 24/7 and has the most comprehensive overview of the utilities, (status, instructions etc.) and various work activities. Work permits are prepared, issued and revoked from the Operational Centre. The Centre also plays a central role on the Campus in signaling and responding to emergency situations Tel. +31 46 4767182.

### 3.2 Sounding the alarm

Call the alarm number +31 46 47 66666 at:

- Medical emergencies (accidents, sudden illness, poisoning)
- Other unusual incidents (fire, explosion, incidents involving transport vehicles, tanker trucks etc.)
- Incidents with a radioactive source
- Incidents with pipes and pipe racks
- Gas leaks
- Air, water and/or soil pollution

The alarm number +31 46 47 66666 is connected with the Central Incident Room of the Chemelot site (the Alert and Care Centre ACC). Give your name and telephone number, the location of the incident (building, level, room number) and answer additional questions.

Also inform the Duty Officer, call the BCC emergency number +31 46 47 66666. The Duty Officer will then take adequate measures and –if necessary –set a Campus emergency plan in motion.

If you see an unsafe situation (almost an accident, near-miss) it is best to report this to the Operational Centre.

### 3.3 Siren alarm

The Chemelot site has different siren areas. The Campus is [siren area 22](#)<sup>3</sup>. When the siren

<sup>3</sup> The exception is the Van Iterson-building G124-37, which is located in siren area 08.

alarm sounds, this means there is a major and immediate (threat of) danger.

The start of the siren alarm is a rising wailing tone of 3 seconds, followed by a descending wailing tone of 5 seconds. This continues for 70 seconds. An announcement via the public announcement system will state which area the alarm concerns and what should be done. When the danger has passed, the safety signal will sound. This is a constant tone lasting for 70 seconds. The announcements can be heard again when you call the following telephone number +31 46 47 68709.

#### A siren alarm sounds: what now?

- Stop your work in a safe manner
- Are you outside? Immediately enter a building<sup>4</sup>
- Follow the signposting to a reasonably airtight room (RDR; toxic shelter)
- Go inside the reasonably airtight room and shut all windows and doors.



- Switch off the ventilation with the stop button (if present)
- Follow the instructions from the PA and from the person who has taken the role as leader or “assembly leader”
- Follow the agreements for reporting and assembly place which apply to your company or department
- Remain in the RDR or reasonably airtight room until you hear the ‘all clear’ signal or a spoken announcement of that nature via the PA
- Limit your telephone usage

<sup>4</sup> Outside regular working hours, go to a building with the title “RDR inside 24/7”

The local supervisor acts as an “assembly leader” and will determine if persons are missing. A person is considered missing if there are reasons to believe that he/she is currently in the danger zone. Suspected missing persons are reported to the Duty Officer on +31 46 47 64444 or +31 62 29 04304. If it becomes clear that persons who were reported as missing are safe, then the “assembly leader” will cancel the missing person’s report.

### 3.4 Evacuation

Everybody on Campus is permitted to commence a (limited, local) evacuation when necessary. The reason for the evacuation (hazardous situation, accident, incident) should be reported as quickly as possible to the

- (1) Central Incident Room (alarm number +31 46 47 66666 of the ACC,
- (2) The local supervisor and
- (3) Duty Officer +31 46 47 64444 or +31 6 22 90 4304.

Larger evacuations (e.g. of an entire building) are announced via the PA.

### 3.5 Evacuation: How to do it!

- Always obey the order to evacuate
- Stop your work safely
- Take measures to prevent people from re-entering the evacuated area
- Follow the instructions about the escape route to be taken to the muster point

The local supervisor ensures agreements within the company or department about:

- Securing equipment during evacuation and siren alarm
- Who takes the lead in the event of a limited, local evacuation?
- Hold an “assembly” and/or floorsweeping

- The “assembly place” needs to be used
- Reporting the number of missing persons to the Duty Officer by phone on +31 46 47 64444.

## 4 Environmental permits

### 4.1 General

[Chapter 1.6](#) outlines the main points of the BCC Environmental permit. For tenants and their staff members, the main BCC permit on the one hand has the benefits of flexibility and prevention of time-consuming permit procedures. On the other hand, the situation is in no way non-committal: BCC is bound to the partial permit and the rental agreement is also based on this. The entire Campus community is mutually responsible for the retention of the License to Operate. The environmental impact generated by office staff is directed and monitored by BCC. The regulations below are required to monitor the environmental impact of lab work and the operation of pilot- and mini-plants.

Changes in the operation outside the agreed frameworks are always reported to BCC’s Property Manager and concluded using BCC MoC practice. This includes adding more capacity, working at higher pressures and temperatures, using other chemicals etc. The Property Managers advise and make inquiries to the tenant to clarify expectations or to see how the desired results can be achieved within the available (environmental) frameworks. See also section 2.6.2 “SHE risks” in the event of changes.

### 4.2 Chemical records

The CISPro application is used for management and administration of the chemical stocks. This information is also used

for the environmental annual report and for updating fire-fighting plans.

The BCC SHE department will assist you further.

#### 4.2.1 Waste materials

Waste materials are collected separately on Campus and processed.

For additional information, contact the [waste material manager](#) tel. +31 464767789.

### 4.3 (Environmental) incidents

Exceptional, unexpected incidents are inextricably linked with carrying out research and development. Note that all these cases in the lab journal, production logbook, or suchlike. If the effects of the incident are noticeable outside your Landlord area, you must report it to the Operational Centre / Duty Officer. If necessary, they will sound the alarm, register the report and - if required - pass it on. For example, report to the authorities in the case of emissions into the air, soil or surface water or notify other Campus residents.

The importance of reporting cannot be emphasized enough. Psychological and social barriers must be overcome to achieve this. On the other hand, comprehensive (and proactive) reporting is essential for the Campus and its *License to Operate*.

## 5 Site access

Other rules are valid for the access and safety on the Campus grounds compared to the industrial parts of the Chemelot grounds. The basic access instruction only provides access to the Campus: access to the Industrial Park is not included, and requires separate instruction and access authorization via Sitech Park Services (at gate 5). Access to the Campus remains separate from the outside world by

tourniquets (pedestrians/cyclists and barriers (cars)) and is only for authorized people. The Campus is closed outside regular opening hours and protected by a fence with a card reader for authorized personnel to gain access.

### 5.1 Access passes

The BCC passes, which are supplied by BCC own management registration in AEOS, solely grant access to BCC.

The BCC passes do not have to be visibly worn within BCC: the registration of residents/visitors is primarily a safety concern, allowing people to move freely over the Campus. The security borders are at building level and the landlords in question may require everyone to wear a pass within their landlord area. BCC uses the site standard for passes which guarantees compatibility.

For security reasons, residents/visitors may be requested to show the BCC pass and show proof of identity.

The Campus uses 5 sorts of access pass:

1. **Residents pass:** For residents of companies located on the Campus.
2. **Contractor pass:** For staff members of contractors who often work for BCC or one of the tenants, or for the duration of a project, or turnaround.
3. **Visitors pass:** visitors are registered by the receiving department and only do office work → E-ticket via digital registration by email. You receive online instruction; After ticking the box to confirm that you have read and understood the instructions, you will receive a QR code which can be scanned at the barrier or tourniquet.
4. **Day pass:** For resident pass holders and contractor pass holders who temporarily do not have their regular pass; for contractor staff who will be on Campus for less than five days and for supplier drivers.

5. Students receive a pass from their educational institute which provides access to the Campus and the spaces rented by the institute.

Residents can request a new residents pass for a staff member by using the Campus resident pass Registration form at [reception in the Center Court](#).

Contractor passes are requested by the Day Officer with a fully completed form “Contractor pass registration / Employer statement for company pass”. Request form needs to be checked and signed by the Duty Officer / Day Officer. The contractor requests the pass personally.

Prior to issuing, the Campus instruction must be completed successfully. This can occur at the reception desk and on the Internet.

Residents or contractor staff members who are not in possession of a passport from a EU member state or EU-affiliated country (SE, CH, LI, IS) are required to have a work permit. In addition, if they reside in the Netherlands, then a residence permit is also required.

### 5.2 Reception

Visitors are received, instructed and supervised by their host/ hostess. The [safety card](#) can be used for this. New staff must be monitored and instructed by the resident or contractor bringing them in.

Normal Campus opening hours are work days from 7 a.m. – 8 p.m. If you would like to work outside these hours, you must report to the Head of Services. Presence on the Campus is registered by way of access turnstiles.

The receptions of Gate 2 and Center Court (Building 200) are occupied from 7 a.m. to 7 p.m.

Filming and photographing in the open air and areas for general use is permitted for non-commercial purposes. However, filming and photographing activities and / or installations at the adjacent Chemelot Industrial Park from the campus is not permitted.

16 years old is the minimum age for access to the Brightlands Chemelot Campus (access via pass system). In exceptional cases, an age limit down to 10 years is permitted, subject to the discretion of the BCC Site Manager. These young people (10-15 years) are always supervised and therefore do not move around independently on Campus. Extra attention is paid to specific instructions for these young people in appropriate and intelligible language to ensure maximum self-reliance. In accordance with site regulations, it is possible in specific cases to arrange exemption from the minimum age limits, subject to the discretion of the BCC Site Manager.

Security staff are permitted to search people on Campus and - if required - charge them.

### 5.3 Vehicle access

Holders of a residents pass or a contractor pass are permitted to bring their vehicles onto the Campus, always observing traffic regulations and the 30 km/h speed limit. Students are not allowed to enter the campus with their vehicle. They must park in parking lot P2

Vehicles drivers must scan access passes or QR-codes for any passengers when passing the barriers (in and out).

Parking for tenants is only permitted on parking spaces P2, P5 and in the parking garage building 122-180.

The parking spaces at the buildings 111-160 and 111-14 / 18 are intended for the tenants / users of these buildings.

The few parking spaces near the buildings are exclusively intended for short-term parking for

logistics traffic. Delivery people are issued with day passes and a [safety card](#).

The Property Manager of [Infrastructure](#) can provide more information about access and security regulations.

## 6 Fire and other emergency situations

BCC is part of the Chemelot site and is therefore required to do the following:

- To describe physical company processes and to keep these descriptions up-to-date as part of the Chemelot safety report (VR)
- To keep, maintain and practice a BCC emergency plan as part of the (Chemelot) site emergency plan

The BCC emergency plan includes all relevant information about the buildings on the Campus that the fire service requires for appropriate emergency response. The BCC emergency plan is maintained by the Duty Officer and specifies the location of sprinkler systems, fire alarm systems, fire extinguishing systems, escape routes. But also: drawings of pipe networks containing toxic and flammable materials. Information about chemical storage and management from CISPro is also included.

For more information: contact the [Duty Officer](#) who maintains up-to-date fire-fighting plans.

## 7 Appendices

### 7.1 List of links to appendices

- [Drivers Safety Instruction card](#)
- Chemelot Campus Practice [MoC & Acceptation Committee](#)
- Chemelot Campus Practice [Management of Change](#)
- Chemelot Campus Practice [Lock-Out Tag-Out Try-Out](#)
- Chemelot Campus Practice [Work permit](#)
- Chemelot Campus Practice [Application VCA duty](#)
- [Elektrotechnical Instructions Brightlands \(EIB\)](#)
- [Generic Elektrotechnical Instructies \(GEI\)](#)
- Locations [AED's](#)
- Locations [RDR](#)
- Locations [assembly points](#)
- [Life Saving Rules](#)
- [LMRA instruction](#)
- [Release form for placing gas canisters](#)
- [Cleaning form](#)
- [Siren Area 22](#)
- [SSVV course guide](#)
- [Safety card](#)
- [Request Work permit](#)

## 7.2 Roles and role-holders

### ***Site Manager***

Luc Lanclus

### ***BCC SHE department***

André van den Berg

Frank Ossebaar

Annelies Vanderheyden

### ***PED experts***

Bart Zijlstra

Dolf van de Kamp

### ***BCC rental administration***

Marie-José Douven

### ***Duty Officer***

#### ***Head of Commissioning***

John Bloemen

Rolf Koch

Hans Lammers

Frank Lenssen

Guus Maes

Jean-Paul Mannens

René Raes

### ***Day Officer***

Peter Vincken

### ***BCC person responsible for the electrical installations***

Eric Elands

### ***Onboarding***

Els Feron

Annelies Vanderheyden

### ***Manager Operations***

Wout Ludema

## ***Property Manager Infrastructure***

Robert Hobus

Ferry van Rijn

Tom Huydts

## ***Reception Center Court***

Babette Ballast

Marian de Haar

Nadine van Kruchten

Solange Rademacher

## ***ServiceDesk Brightlands***

Stephanie Gerards

Renée Gildeman

Joanna Overgaauw

Peter Sukel

## 7.3 Key modifications

Publication date	Changes
21 August 2018	<ul style="list-style-type: none"> <li>- Adjustment consulting hours Day Officer for the request of work permits and/or questions regarding work permits. The Day Officer is not present on Thursday. (2.6.3 Work permits)</li> <li>- Adjustment duration siren alarm and safety signal to 70 seconds. (3.3 Siren alarm)</li> </ul>
29 May 2018	<ul style="list-style-type: none"> <li>- Addition of Chemelot Campus Practice 'application VCA duty' (2.5.1 VCA contractor personnel)</li> <li>- Assembly leaders obligation to work with an appeal list to determine if there are missing persons has been removed. Other means such as floor sweeping, access control, etc. can also be used. The employer / landlord is responsible for the implementation of the care for the employees that they are gathered in a safe place in a calamity situation (3.3 Siren alarm).</li> <li>- Clearer indication of the use of parking facilities for cars on the BCC (5.3 access with vehicles).</li> <li>- Designation of parking places where 'reverse parking' is compulsory (2.9 Traffic and transport).</li> <li>- Basic SCC (VCA) as training requirement for DCUs. In accordance with regulation 'The roles at the creation of the Site Work Permit' from the Chemelot Rules (2.2 Roles).</li> <li>- Replacing the Electrotechnical Operating Regulations (EBV) with the NEN3140 supplemented by Electrical Instructions Brightlands (EIB) and Generic Electrotechnical Instructions (GEI) (2.8 Electrotechnical Safety). Effective date of the new EIB GEI is 1 June 2018.</li> </ul>
22 March 2018	<ul style="list-style-type: none"> <li>- Procedure for the preparation of work permits where the Operational Center BCC has the role of Head of Commissioning added (2.6.3 Work Permits)</li> <li>- Campus non-smoking area (2.13 Smoking, alcohol and drugs)</li> <li>- Filming and photographing of industrial park not permitted (5.2 Reception)</li> </ul>
20 Sept 2016	<ul style="list-style-type: none"> <li>- Follow-up on compliance by the BCC Site Manager in accordance with "Compliance policy with regards to regulations" guidelines (1.3 Monitoring and enforcement)</li> <li>- <i>Best practices</i> for working risks are supported by the Brightlands Chemelot Campus Board and Brightlands Chemelot Campus Community Board. The landlords at the BCC are responsible for the implementation of the provisions (1.7 Working Conditions Act)</li> <li>- The Campus has placed the security borders at the level of the buildings. Campus access control is solely focused on Safety and registration, not on security (1.8 Security)</li> <li>- The Brightlands Chemelot Campus is a signatory to the location-wide complex permit in the context of the Nuclear Energy Act (2.16 Nuclear Energy Act)</li> </ul>

	<ul style="list-style-type: none"> <li>- Minimum age for access explained further (5.2)</li> </ul>
2 Sept 2016	<ul style="list-style-type: none"> <li>- Requirements for Direct Head of Operations in labs. (2.5.6. operational management elements)</li> <li>- Landlord point of contact for Head of Services/Day Officer if work must be carried out on building-related installations in the landlord area. (2.2 roles)</li> <li>- Training requirements for “VCA-Vol ”added for the Head of Operations, the Direct Head of Operations, the Head of Implementation, the Direct Head of Implementation, and the exceptional requirements for the Direct Head of Receiving in the lab rooms of the companies and institutes located on the Campus. (2.2 roles)</li> <li>- Modification to description of landlord area for Head of Services on behalf of Site Manager in installations, buildings, roads &amp; grounds with general functions and non-rented spaces. (2.2)</li> <li>- Added roles for Head of Services:             <ul style="list-style-type: none"> <li>- Issue, manage and monitor Campus residents via Safetel (with working alone)</li> <li>- Authorized person with regards to request company passes and Permit for Discharge</li> <li>- Monitor companies</li> </ul> </li> <li>- List of Last Minute Risk Analysis Instructors is available from the Head of Services (2.5.4)</li> <li>- Life Saving Rules (LSRs) adopted verbatim from the Chemelot site</li> </ul>
26 Aug 2016	<p>Day Officer instead of Day Head Contractor instead of Company Staff</p>
22 Aug 2016	<p>Checking content, style and consistency; Assessment by specified people/departments, SHE&amp;S consultation and Community Board</p>
1 July 2016	<ul style="list-style-type: none"> <li>• Integration of             <ul style="list-style-type: none"> <li>○ Chemelot Basic document,</li> <li>○ Campus Rules and</li> <li>○ Policy paper on Brightlands Chemelot Campus Site Regulations</li> </ul> </li> <li>• Minor changes in structure</li> <li>• Changes in language and style to improve legibility</li> <li>• Updating names, roles and tasks.</li> </ul>