

SUURTEOLLISUUSPUISTO INDUSTRIAL PARK HARJAVALTA



SAFETY AND ENVIRONMENT GUIDE

EMERGENCY NUMBER

Emergency calls are first directed to the main gate of the Suurteollisuuspuisto Industrial Park so that the gate can give the required directions, for example, at the arrival of an ambulance.

Raise the alarm

from a landline phone **112**

from a mobile phone **(02) 5358 112**

When making the emergency call, answer any questions you are asked. Do not put the phone down before you get a permission to do so. If you have contacted the Satakunta emergency services directly, notify the main gate of the matter.

Save the emergency numbers in the memory of your mobile phone.

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SAFETY GUIDELINES FOR WORKING AT THE SUURTEOLLISUUSPUISTO INDUSTRIAL PARK

This safety and environmental guide is meant for everyone who will be working in the area of the Suurteollisuuspuisto Industrial Park in Harjavalta. A total of 16 partnership companies and about 100 subcontracting companies are operating within an area of approximately 300 hectares in the Suurteollisuuspuisto Industrial Park. The partnership companies are significant experts in metallurgy, chemical industry, gas manufacturing and process energy utilisation, and specialists in the fields supporting these operations.

This guide tells you the most important safety issues that you must be familiar with when working in the area of the Suurteollisuuspuisto Industrial Park. In addition to this guide, you will already have passed the **general workplace orientation for the Suurteollisuuspuisto Industrial Park** and you will also undertake **safety training specific for each department**, as well as the necessary **task-specific training**. **All those working within the area of the industrial park must have a valid work safety card**. Your manager or supervisor will provide you with more detailed safety instructions concerning your work area.

MOVEMENT IN THE SUURTEOLLISUUSPUISTO INDUSTRIAL PARK

Movement within the Suurteollisuuspuisto Industrial Park is always subject to permission. Employees enter the park through the personnel gates using an access control identifier. The access control identifier is personal and it must not be passed on to third parties. The identifier is returned to the main gate immediately after the work has been completed. Contractors' employees must have a photo ID card when they arrive for work at the Suurteollisuuspuisto Industrial Park.

Only the absolutely necessary traffic is allowed in the industrial park area. **Pedestrians and cyclists must use the lanes for their use, marked with signposts**. Vehicles arriving in the area need a vehicle-specific identifier and a driver card. On arriving at the plant area, only the driver may be inside the vehicle. Any passengers must enter through the personnel gate. In the area of the Suurteollisuuspuisto Industrial Park, the general regulations of Finland's Road Traffic Act are observed along with

the speed limits indicated by traffic signs. Security guards carry out speed monitoring in the area. Speeding results in a fixed-term loss of the driving permit. Parking is permitted only in places specifically signposted for that purpose. **Only trained personnel may operate forklift trucks and other heavy machinery** within the Suurteollisuuspuisto Industrial Park.

PROTECTIVE EQUIPMENT

The appropriate protective equipment ordered for use in the department or area must categorically be worn. Contractors must have the protective equipment referred to in the contract at their disposal when starting work. Further information is available from your own supervisor. The basic personal protective equipment when working in production facilities includes:

- overalls with the employee's name displayed (in hot work EN ISO 11611)
- protective shoes and gloves
- respiratory protector (when necessary)
- hard hat
- goggles
- visor (when necessary)

OCCUPATIONAL HEALTH

Occupational health service

All partners and service providers must offer statutory occupational health services. Contractors must ensure that there are sufficient supplies of first-aid equipment in their work locations. Contractors are responsible for the first-aid skills of their own employees.

Occupational hygiene

Hazardous chemicals are manufactured, stored or handled in the area of the Suurteollisuuspuisto Industrial Park. Some of the substances are carcinogenic. For this reason, personal occupational hygiene must be observed.

Hazardous substances present in the production facilities may enter the human body through breathing, absorption through the skin or via the mouth when eating or smoking. Exposure to hazardous substances is avoided by using the required protective equipment, washing your hands

always before eating or smoking and changing your work clothes regularly. Further information and instructions are available from your manager or supervisor.

Narcotics

Smoking is permitted in the Suurteollisuuspuisto Industrial Park only in the designated smoking areas. Alcohol or narcotics must not be brought into the Suurteollisuuspuisto Industrial Park, and working while under their influence is strictly forbidden. **We comply with zero tolerance with respect to alcohol and other narcotics in the industrial park.** At the main gate, there is a breathalyser, which the security guards may use in suspicious cases.

HAZARDOUS SUBSTANCES

Hazardous chemicals and gases are manufactured, stored and used in the area of the Suurteollisuuspuisto Industrial Park. Some of the substances are carcinogenic. For this reason, personal hygiene must be observed. Among the hazardous substances, ammonia, oxygen, lye, liquefied petroleum gas, sulphur dioxide, sulphuric acid, hydrochloric acid and naphtha will cause a hazardous situation in the event of a leak.

GAS HAZARD ALARMS

In a gas hazard situation, the general danger signal is given using a rising and falling siren, which will last for one minute. When you hear the siren, go to the shelter or assembly facility. The personnel at the gate will provide further information via the public address system. More detailed instructions are available in the departments and at the end of this leaflet. Familiarise yourself in advance with the shelter facilities in the plant area.

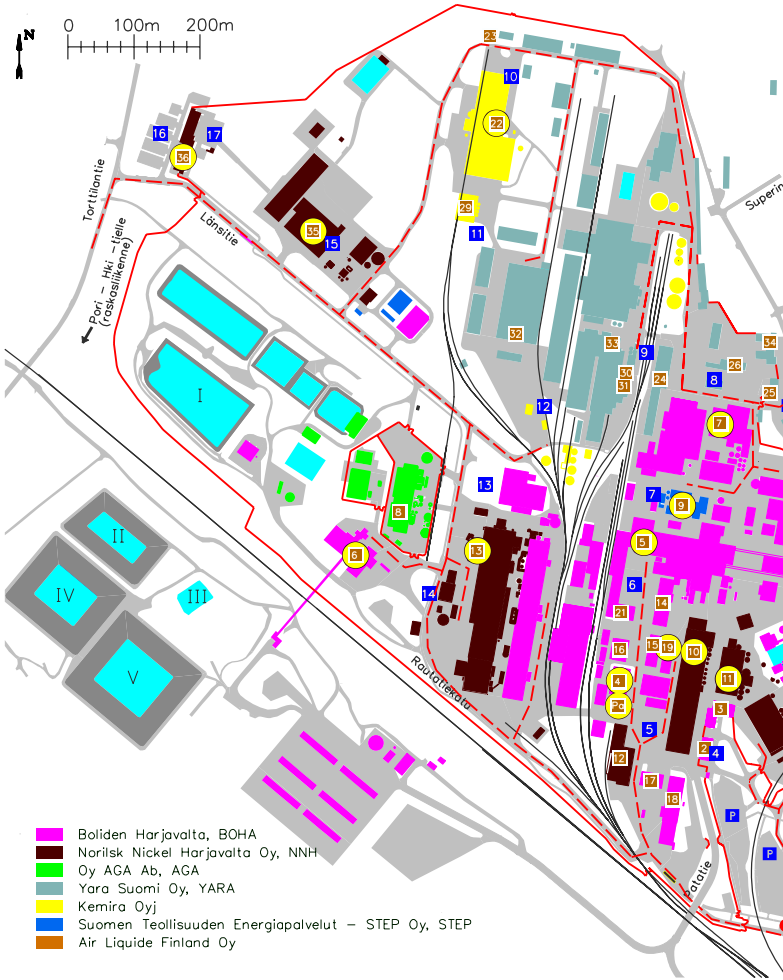
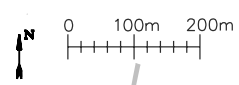
DATA PROTECTION PAPER			Material recycling
WASTE PAPER			Material recycling
PAPERBOARD (cardboard, cores)			Material recycling
WASTE WOOD			Re-use or chopping and energy utilization
ENERGY WASTE (Burnable)			Chopping, energy-utilization
PLASTIC BIG BAGS			Chopping, energy-utilization
BIO WASTE			Turning waste into earthy substance, composting
METALS			Material recycling
Waste to dumping place			Dumping place, Hangassuo, Pori
HAZARDOUS WASTE Different kinds of hazardous waste must be sorted separately.	Fluorescent lamps, batteries, accumulators (car), aerosol packages, solvents, paints, glue, varnish, solid oily waste, used lubrication oil waste, other hazardous waste in process	Hazardous waste-collection container or own bin placed in production department	Treatment and recycling / final placing in licensed hazardous waste disposal plant

**PLEASE:
-DO ANNOUNCE
OVERFILLED OR
MISSING CONTAINER
-ASK FOR DETAILED
ARRANGEMENTS
IN PRODUCTION
DEPARTMENTS**

	= Waste producer is responsible of sorting work himself
	= Lassila & Tikanoja Oyj L&T 050 3856 401 Timo Kujamäki
	= SOL Cleaning or Valtasiirto Ltd or other contractor SOL 040 521 8218 Asta Järvensivu Valtasiirto 050 386 4117 Marko Näsinkoski







- Boliden Harjavalta, BOHA
- Norilsk Nickel Harjavalta Oy, NNH
- Oy AGA Ab, AGA
- Yara Suomi Oy, YARA
- Kemira Oyj
- Suomen Teollisuuden Energiapalvelut – STEP Oy, STEP
- Air Liquide Finland Oy

--- Fire Department Access Routes

Suurteollisuuspuisto Industrial Park

Safety Rooms

- 1 Main Gate
- 2 Head Office, BOHA
- 3 Clubhouse
- 4 Canteen/Central care
- 5 Cu and Ni Smelters
- 6 Cu Slag Concentrator
- 7 Weak Acid Terminal
- 8 Oxygen Plant
- 9 Power Plant
- 10 Ni Electrolysis (Tank House)
- 11 FSF Leaching Plant
- 12 Ni Cutting Plant
- 13 Solvent Extraction/Reduction Plant
- 14 Mechanical Equipment Repair Shop
- 15 Laboratory
- 16 Maintpartner Office, Electric Repair Workshop
- 17 Vehicular Repair Workshop, Valtasiirto
- 18 Sampling Department
- 19 TEKO Factory Office
- 20 Health Center
- 21 Central Storage
- 22 Aluminium Salt Plant
- 23 Customer Service
- 24 Maintenance/Spare Parts Supply
- 25 Office
- 26 Laboratory
- 29 Special Acid Plant
- 30 Water-soluble Fertilizer Plant
- 31 Sacking
- 32 Palleting

Evacuation Assembly Points

- 1 IT Building, front yard
- 2 Main Gate, front yard
- 3 Health Center, front yard
- 4 Head Office, BOHA, front yard
- 5 Yard between Ni Cutting Plant and Ni Elektrolysis
- 6 Cu and Ni Smelters, central yard
- 7 Yard between Building number 153 and Power Plant
- 8 Yard between Biocontrol products and Sulphuric Acid Plant
- 9 Compacting Plant, front yard
- 10 Yard between Aluminium Salt Plant and Customer Service
- 11 Special Acids Plant, south side
- 12 SO2 train loading, west side
- 13 Yard between Oxygen Plant and Main Switch Station
- 14 Yard between BOHA Slag Concentrator and NNH Solvent Extraction/Reduction Plant
- 15 Chemical Plant, NNH, front yard
- 16 Head Office, NNH, front yard
- 17 Head Office, NNH, backyard
- 33 Compaction Plant
- 34 Canteen/Auditorium
- 35 Chemical Plant, Control Room
- 36 Head Office, NNH
- 37 IT Building, BOHA

Defibrillator locations

- | | |
|---|---|
| 1 Main Gate | 9 Power plant, Control room |
| 4 Canteen/Central care | 10 Ni Elektrolysis, Control room |
| 5 Cu/Ni Smelters, Main control room | 11 FSF Leaching Plant, Recreation room |
| 6 Cu Slag concentrator, Control room | 13 Solvent Extraction/Reduction Plant, Control room |
| 19 TEKO factory office (green side second floor, Arkki) | 22 Aluminium Salt Plant |
| 20 Fire station | 35 Chemical Plant, Control Room |
| 20 Health Center | 36 Head Office, NNH, Reception |
| 7 Sulphuric acid factory Control room | |

Safety Rooms, Evacuation Assembly Points and Defibrillator locations

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ENVIRONMENT

It is the contractor's duty together with the client to establish the environmental risks related to the work and to ensure that these risks are taken into account by the contractor's employees.

- Hazardous waste is stored and handled so that it will not enter the soil, groundwater or waterways.
- Waste is sorted in an appropriate way at the source of waste generation in accordance with the effective sorting instructions (see the next page)
- Oil, sand or precipitate must be prevented from entering the drains.
- Taking inappropriate solutions or waste to the areas of process slags or precipitates is not permitted.
- All work must be carried out so that no environmentally harmful noise or dust is produced.

In the event of environmental damage, employees must take immediate steps to prevent and restrict the entry of hazardous substances into the environment.

However, if any hazardous substance does enter the environment, act as follows:

- A representative of the client organisation (supervisor or managers) must be informed of any environmental hazard or damage.
- The reasons for the damage or hazard and any environmental impacts are verified.
- Efforts are made to eliminate the nuisance or damage, to remove any environmental hazards (e.g. oil) and to carry out a clean-up operation.

WORK PERMITS

A work permit system is in effect in companies and their departments operating in the Suurteollisuuspuisto Industrial Park. Work carried out in the production facilities always requires a valid, written work permit before the work commences. A separate permit is also required for hot, container and excavation work and for maintenance and repair tasks related to fire hydrant and extinguishing systems. The contractor must present a plan on significant dismantling, lifting and installation work to the supervisor and client organisation before the work commences.

PREVENTION OF ACCIDENTAL START

When carrying out maintenance and repair work, the maintenance area must always be accessed via the control room. The personnel of the production department will stop the machinery to a safe maintenance state. After that, the person carrying out the work will turn the safety switch in the work area to the 0 position and then lock it with a lock equipped with his own name. After the work is completed, the lock is detached and the control room is notified of the completion of work.

LADDERS AND SCAFFOLDING

Openings and shafts located in work areas and passageways must always be protected or clearly marked. Inclined ladders may only be used as a temporary access. The ladder must be positioned so that it will not fall, and it must be equipped with an anti-slip device, if necessary. Only scaffolding equipped with an approved and effective scaffolding card may be used. **If there is danger of falling, e.g. from the edge of the roof or working platform, or into an opening in the working platform, a safety harness must be worn at all times.**

ESTABLISHING THE SITE

Construction of temporary site and storage facilities in the area of the Suurteollisuuspuisto Industrial Park is always subject to permission. Construction of these facilities outside the buildings requires a site plan and observance of safety regulations.

The contractor is responsible for the order and tidiness of the site until the acquisition has been approved. The contractor must take into account any productional operations in the immediate vicinity of the site. The site cabins must have preliminary extinguishing equipment, at least one 12 kg powder extinguisher, and first-aid material.

ELECTRICAL WORK

The electrical appliances used on site must comply with legislation and regulations, e.g. residual current circuit breaker. The ATEX regulations must be complied with in an environment with an explosive and flammable atmosphere. Temporary electric cables must be installed so that they are not exposed to mechanical wear or damage. Do not install electric cables along passageways or on stairs. Avoid especially installation between the door and doorframe. Electrical facilities must be kept locked.

FIRE SAFETY

Particular care must be taken in all fire handling. Passageways outside and indoors, as well as doorways in buildings must be kept clear to allow free access by the fire brigade and personal rescue.

In a temporary place of hot work, a written hot work permit is always required, and the person carrying out hot work must have a valid hot work licence. The hot work licence is mainly granted by the manager responsible for the production of the department. It is not permitted to carry out tasks that create sparks in facilities with a hazardous explosive atmosphere. Only Ex-approved electrical appliances may be brought into facilities with a hazardous explosive atmosphere. Roof hot work always requires a separate written hot work licence granted by the head of the rescue services of the Suurteollisuuspuisto Industrial Park. The contractor must organise for constant fire watch for the time specified in the hot work licence, including fire watch after the completion of the work. Fire watch must also be carried out during breaks. The preliminary fire-fighting equipment required in the work areas is organised by each contractor in their own work areas. Portable fire extinguishers in the buildings must not be moved from their stands.

RESPONSIBILITIES OF THE CLIENT, CONTRACTOR AND SUPERVISOR

The client shall inform the contractor already in the tendering stage of the issues related to safety and occupational health and environment required of the contractor's employees in tasks carried out in the area of the Suurteollisuuspuisto Industrial Park. When concluding the contract and arriving at the area, the compliance of these requirements is verified (general workplace orientation + test, valid work safety card, safety training in the department, work permit, etc.).

The contractor is responsible for the occupational safety of its employees, making sure that the statutory obligations are met. A responsible manager appointed by the contractor represents the employer in the workplace and also supervises the compliance of instructions given by the client.

The supervisor is a person appointed by the client for each site. The supervisor is responsible for making sure that the contractor's employees are given a sufficient amount of information about the instructions,

rules and regulations on working in the area. The supervisor is jointly responsible with the contractor's representative for any need for risk assessment of hazardous work and its implementation in co-operation with the responsible person in the department.

PREVENTATIVE SAFETY (0 ACCIDENTS)

In the area of the Suurteollisuuspuisto Industrial Park, our key goal is the achievement of 0 accidents in the broad sense, i.e. also including the environment and occupational health issues. In our way of thinking, all accidents, environmental damages or exposures can be prevented. This requires constant preventative safety work (recording of and dealing with hazardous situations), compliance with instructions, use of protective equipment, and a sufficient risk analysis before the commencement of the work. **If you notice a safety-related shortcoming, report it to your own supervisor.**

SAFETY REGULATIONS

These safety regulations have been drawn up for the sake of **YOUR** own safety. These regulations **MUST BE FOLLOWED** at all times in the plant area, regardless of whether you are an employee, visitor or contractor.

DO NOT put your safety at risk under any circumstance.

ASK if you don't know or if you are unsure about something.

- Follow the safety bulletins, instructions and signs.
- Injuries, accidents and hazardous situations must be reported immediately.
- In an alarm situation, ensure the safety of your work area and task and report to the assembly point.
- Employees must carry and use an access control identifier at all times when moving within the plant area.
- Always use personal safety equipment required in the performance of the task.
- Always use appropriate tools, equipment and materials required in the task.
- Only approved and tested electrical appliances may be used in the plant area.
- Smoking, eating and drinking in the plant area are only permitted in the designated areas.
- Being under the influence of alcohol or drugs is strictly forbidden.
- The plant area must be kept clean, tidy and safe.
- Photography in the plant area requires a permission.

REPORT OF A HAZARDOUS SITUATION, ACCIDENT OR ENVIRONMENTAL DEVIATION

Date of occurrence _____ Time _____

Company and department where the event took place?

Task _____

Description, what happened?

What resulted from the situation?

Company you work for, and your manager?

Name of your supervisor

Your own name

EMERGENCY INSTRUCTIONS

WHAT TO DO IN CASE OF A FIRE

- 1 SAVE** all those who are in danger.
- 2 EXTINGUISH** with a preliminary fire extinguisher.
- 3 CALL** for help (emergency numbers are on page 2 of the guide)
- 4 RESTRICT** the fire by closing all doors, windows and hatches.
- 5 GUIDE** for the fire brigade to the scene

WHAT TO DO IN CASE OF A GAS LEAK FOR THE PERSON DETECTING THE LEAK

- 1 CHECK** the wind direction from chimney smoke or windsocks.
- 2 CALL** for help (emergency numbers are on page 2 of the guide)
- 3 GIVE** your name, department, location of the leak, wind direction.
- 4 INFORM** your department, supervisor and colleagues.
- 5 USE** a facial mask if necessary.
- 6 GO** to the nearest designated shelter facility.

WHAT TO DO IN CASE OF A GAS LEAK

- | | |
|-------------------|--|
| 1 CHECK | the wind direction from chimney smoke or windsocks. |
| 2 EQUIP | yourself with a facial mask, if necessary. |
| 3 HELP | anyone who is injured or anxious. |
| 4 PERFORM | your duties in accordance with separate instructions. |
| 5 GUIDE | others to equip themselves correctly. |
| 6 CALM | others in equipping themselves and starting the evacuation. |
| 7 EVACUATE | by breathing evenly and walking calmly to the closest designated shelter facility. |
| 8 REPORT | your arrival at the shelter facility. |
| 9 HELP | in any required measures in the shelter facility, if necessary. |
| 10 WAIT | for further instructions from those in charge. |

General alarm signal means that the surrounding population is in some immediate danger. In situations of danger comply with instructions given by the authorities.



Do the following when you hear the general alarm signal:
Go indoors and stay there.



1 Close all doors, windows, and ventilators and turn off air conditioners.



2 Listen to the radio and observe instructions provided by the authorities and comply with



3 the instructions.
Avoid using the telephone in order not to overload the network.
The all clear signal is a continuous and even sound, one minute in length. It indi-



4 cates that the threat or danger has been cleared.