

# Safety during Excursions and Fieldwork

**Delft University of Technology**

Faculty of Civil Engineering and Geosciences

Department of Geoscience & Engineering

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# 1 Safety requirements

## 1.1 Introduction

Fieldwork and excursions are an essential part of the Applied Earth Sciences degree programme at Delft University of Technology (TU Delft). The various excursions and field trips allow students to acquire essential skills, giving them the opportunity to see what rocks, fossils and minerals look like in the field, teaching them how to recognise the formation processes of a wide range of geological structures, environments and landscape forms, and to perform geophysical observations. During excursions and fieldwork, students also learn to use basic and advanced geological and geophysical measurement tools.

This memorandum contains safety regulations for persons participating in excursions and field trips, and sets out the responsibilities of the teaching board, lecturers and students. Notwithstanding the above, students and lecturers also bear a personal responsibility for their own health and safety and that of others during excursions and field trips. This personal responsibility is not limited to activities in the field that are directly related to the excursion or to the completion of field assignments, but also covers the behaviour and all actions of participants during the free time within the period of the excursion or fieldwork.

## 1.2 Responsibilities

### *Director of Education / Departmental Director*

The Director of Education or the Departmental Director have primary responsibility for laying down regulations relating to safety and conduct during fieldwork and excursions. In this context, the Director of Education is responsible where students of the Applied Earth Sciences degree programme are concerned, and the Departmental Director is responsible where staff members are concerned. These directors are also responsible for all measures required to facilitate the implementation of the safety regulations. Through the department/faculty, they provide the material and staff resources needed to implement the safety regulations. This includes resources for first-aid training, safety equipment (e.g. safety helmets) and, if necessary, drivers. The University provides adequate insurance cover for participants. The cost of material resources that can reasonably be regarded as part of the standard personal equipment for field work (mountaineering boots, safety footwear, etc.) are borne by excursion participants.

The Director of Education brings the regulations to the attention of all students and all staff members involved in fieldwork education (including PhD students, postdocs, etc.), and ensures that, if necessary, the lecturer with primary responsibility draws up a Health & Safety Plan (see 1.3) in advance and brings this to the attention of all participants in the relevant fieldwork and excursions.

### *Lecturer with primary responsibility*

The lecturer in charge of fieldwork or an excursion has primary responsibility for ensuring that participants comply with regulations relating to safety and conduct during excursions and fieldwork.

He/she is responsible for drawing up an H&S Plan for the activity concerned. This plan

must comply at the very least with guidelines drawn up by the department. The lecturer in charge must bring the document to the attention of students and other lecturers involved before the activity commences. The lecturer is also responsible for ensuring that all persons involved comply with the safety regulations. The duties of the lecturer in charge include imposing ad-hoc sanctions on participants who endanger safety or behave irresponsibly.

#### *Other lecturers*

During fieldwork and excursions, supervisors of students and student groups (including PhD students, postdocs etc.) must expressly comply with the safety regulations, thus setting an example for participating students. The other lecturers must follow the instructions of the lecturer in charge and, if necessary, issue additional safety instructions or advice to students. They must also ensure that students comply with the safety and conduct regulations.

#### *Students*

After receiving proper instruction, students are expected to behave in a way that does not involve taking unnecessary or irresponsible risks. If they nevertheless take such risks, any resulting damage/injury - either to themselves or to third parties - is primarily at their own cost and risk. Students must comply with the safety regulations and rules of conduct drawn up by the department, and with additional 'ad-hoc' safety instructions given by lecturers. Failure to do so can result in sanctions (immediate termination of the field activity). Staff and students are required to provide the lecturer in charge, in advance, with any relevant information relating their health that could have implications for their personal safety or that of others in the immediate vicinity.

### **1.3 General regulations**

#### *1. No fieldwork in the event of a negative travel advisory*

Fieldwork and excursions are not permitted in areas for which the Netherlands Ministry of Foreign Affairs has issued negative travel advisory. If arrangements have already been made these must be cancelled. Travel advice can be found at:

<http://www.rijksoverheid.nl/onderwerpen/reisadviezen>

Prior to departure, the lecturer in charge must check whether a negative travel advisory has been issued.

#### *2. No individual fieldwork in Years 1 and 2 of the degree programme*

Individual fieldwork is not permitted in Years 1 and 2 of the Bachelor's degree programme. In these years, all fieldwork is carried out in groups of two or more students. Any requests submitted by students to carry out individual fieldwork will be denied.

#### *3. Emergency Card*

Before **every** excursion or field trip, the **lecturer in charge** produces an Emergency Card (see Appendix 2) which lists the emergency phone numbers and addresses and the procedures to follow in case of an emergency.

#### 4. *Signing the Safety and Conduct Declaration*

Students are required to sign the Safety and Conduct Declaration in order to participate in field activities. The text of the declaration is found in Appendix 1.

#### 1.4 *Insurance*

TU Delft has insurance that provides cover within and outside the Netherlands. When TU Delft sends out lecturers to carry out fieldwork, they are insured, as are the students (their guests) who accompany them and act on their instructions. The insurance is subject to Dutch law. This means that claims for damage/loss, injury etc. will as far as possible be dealt with according to criteria that apply in the Netherlands. Cover is worldwide, except in the case of staff members who carry out medical procedures in the USA and Canada.

As TU Delft has undertaken to provide adequate insurance cover for all participants in field activities, it is *not* necessary for individual participants to arrange their own travel insurance. In addition, it must be noted that 'normal' travel insurance (in other words: holiday insurance) is not suitable for study-related field activities. (*Please Note:* students *do* need to arrange their own additional travel insurance if they decide to extend their stay with a holiday).

For insurance purposes, lecturers in charge of excursions or field trips must ensure that the Faculty has been informed of the names of all participants. However, the possibility of actual damage/losses incurred being greater than the maximum insured amount cannot be precluded. In general terms, it can be said that the following are insured through TU Delft:

- Medical/dental costs that are incurred outside the Netherlands insofar as these are not covered by the participant's own health insurance.
- Luggage up to €1,500, with a €125 deductible.

#### 1.5 *Group transport for fieldwork and excursions*

- a. With regard to excursions and field trips, it is assumed that minibus transport will be required to carry out the employer's assignments. Lecturers and student assistants are permitted to drive these vehicles, and are covered by the insurance, on condition that the bus is used in a normal way (number of passengers does not exceed the number of seats, no alcohol consumption, etc.). Students may also drive the vehicle on the instruction of the lecturer in charge. For insurance purposes, students fall within the category 'guest of the TU Delft staff member'. They are also covered by the insurance. Here too, the condition applies that insurance claims are only honoured if the vehicle has been used in a normal and sensible manner. The Director of Education's policy with regard to drivers is that, although requesting students to drive vehicles for group transport is not encouraged, neither is it prohibited. The Director of Education assumes that the lecturer responsible for the relevant study component will only allow students to drive a vehicle if they can be reasonably assumed to have sufficient driving experience. TU Delft offers the student drivers a one-day safe driving course.
- b. Student assistants are not permitted to take on the task of driving and at the same time participate in the activity as a student receiving tuition, unless they are only required to drive to and from the fieldwork/excursion location or for short journeys each day.
- c. Drivers are required to inform the lecturer in charge of any matters that could affect their driving (e.g. health-related matters).

- d. If there are no drivers available who are employees, professional associates or guests of TU Delft, professional drivers should be used and possibly, as a consequence, a bus belonging to a transport company.
- e. All transport relating to an excursion or field trip must take place as determined by the Director of Education or the person(s) leading the excursion or field trip.
- f. Drivers must have a valid driving licence for the type of vehicle they are driving.
- g. Seat belts must be worn in the vehicle at all times, by all persons travelling in the vehicle.
- h. The driver is not permitted to use a mobile phone (including a hands-free phone) while driving.

Responsibilities can only be delegated to persons or bodies that are competent under the law or other regulations, and that assigning a student with tasks other than those related to his/her own personal safety must be done strictly in accordance with his/her abilities as a student.

## 2 Code of conduct

### 2.1 Introduction

Although many places and activities will not harbour many more risks than those encountered in everyday life, Applied Earth Sciences excursions and field trips, by their very nature, always involve certain inherent risks. For example, steep rock faces, quarries, mines and construction sites, sites along coastlines and rivers, public roads or railways, river beds, peat bogs and mountainous areas can be dangerous places. In addition, bad weather conditions can increase the related risks considerably. Inexperienced, untrained and poorly informed participants are often unaware of the risks they run.

The risks involved in carrying out Earth-science fieldwork must be kept to a minimum. This section deals specifically with general rules of conduct and situations that can pose risks. It is not only in the field that unsafe situations arise and accidents occur. Most of the accidents that have occurred in the past had nothing to do with the actual fieldwork site, but did take place in the area of the excursion or fieldwork.

### 2.2 General code of conduct

- Behave in an orderly and responsible manner during excursions and fieldwork.
- Respect local customs regarding dress and conduct. Remember that, in most countries, people are less tolerant than in the Netherlands. Remember: it is possible that your behaviour could give the wrong impression to the local population. Do not dress or conduct yourself in a way that could be misinterpreted.
- Respect other people's property, not only in the field but also in the buses and at the hotel or camp site.
- Always ask permission before entering private property. Close gates and do not leave behind any waste or mess.
- At fieldwork sites or on roads, do not leave behind any rock fragments that could harm livestock or endanger traffic or passers-by; when you leave a site, leave it in a safe condition for the people who will come there after you.
- Observe the rules of conduct when in nature areas and make sure you are aware of local by-laws.
- Be considerate and respect the environment; do not disturb nature.

Failure to comply with general rules of conduct can result in sanctions and, following a verbal warning by a lecturer, immediate termination of the field activity.

### 2.3 Keep yourself informed and inform others

- Ensure that people at home can contact you: let them know where you are.
- Remember to provide the lecturer with the main responsibility with an emergency contact address and telephone number.
- Before the fieldwork commences, find out about the nature of the terrain and the possible local weather conditions. This is essential in order to ensure that you have the right clothing and footwear with you.
- Do not go out into the field without telling someone where you are going (leave directions or a map if necessary) and what time you will return. When you return, remember to let the

relevant people know! Remember to take the address and telephone number of your accommodation with you, so that you can let people know if you are delayed. If other people do not return at the expected time, alert the supervisors and agree on who will contact the police.

## ***2.4 Alcohol, smoking and drugs***

- The use of alcohol is prohibited during fieldwork and excursion work (i.e. during working hours).
- Do not smoke in dry areas and in areas where smoking is forbidden by regulations or warnings
- It is forbidden to carry or use drugs during field trips and excursions. This applies to the entire period during which staff and students are away for the purpose of field/excursion work. In other words, the rule also applies outside normal working hours.

## ***2.5 Traffic***

- Do not consume alcohol when participating in traffic, and avoid excessive alcohol intake on the evening prior to participating in traffic.
- Drive calmly and defensively; ensure the safety of the vehicle and your passengers. Make sure that you return rented vehicles in an undamaged state after a field trip.
- If you are driving off-road, be aware that in some cases it might be better to leave the vehicle and proceed on foot.
- If you are travelling to another country, find out (e.g. via the ANWB) how the traffic regulations differ from those in the Netherlands.

## ***2.6 Clothing***

- It is preferable to wear long trousers when carrying out fieldwork, even in hot climates. This protects against abrasions or more serious injuries. In hot climates, wear a sun hat to protect your head. The use of sunscreen (preferably SPF 30 or higher) is essential in sunny regions.
- In rainy areas, you may feel cold, wet and uncomfortable when carrying out fieldwork. Not only does this mean you run the risk of hypothermia, but there is also a greater risk of accidents, as your attention may be distracted.
- Always wear clothes in thin layers suited to the weather conditions: a shirt, loose-fitting trousers, a warm jumper, and a brightly coloured waterproof anorak with hood.
- In very wet weather, make sure that you also wear waterproof rain trousers and a hat. Tight-fitting jeans are completely unsuitable in wet weather; they do not dry out, which means you run the risk of developing hypothermia in cold, strong winds. A rain/wind outfit for cyclists is a good option.
- An umbrella might seem a good idea for when it rains, but is by no means suitable in rough terrain, where you will need both hands to keep your balance and stop yourself from falling.
- The standard footwear for fieldwork is walking boots (preferably waterproof) with rubber grip soles. Sneakers are forbidden - wearing those is just asking for accidents and injuries. Rubber boots are suitable on flat terrain that is wet and muddy.
- Wear a safety helmet wherever there is a danger of falling stones or other objects (e.g. in disused quarries, cliffs, steep rock faces, scree slopes). Safety helmets must be worn when visiting working quarries, mines and construction sites.



- Check the weather forecast on a daily basis. Be aware that the weather conditions may change while you are out in the field, especially in mountain areas. Do not hesitate to turn back if weather conditions deteriorate. Always take waterproof clothing and an emergency blanket (foil) with you when you plan to spend several hours working in the field.
- During thunderstorms, seek shelter and crouch down - but not under a tree! Thunderstorms in mountainous areas are very dangerous. When walking in the mountains, you should therefore plan to reach the highest point on the route before 12 noon.

## ***2.7 Hypothermia (drop in body temperature) and hyperthermia (sunstroke or heat stroke)***

Hypothermia is the result of a dangerous loss of body heat, usually due to wearing wet or insufficient clothing in windy conditions. The first symptoms are uncontrolled shivering, pale skin and aggressive reactions to questions and advice. This is followed by lethargy and lack of coordination. The affected person feels warm and drowsy. The best treatment is a bath at 40°C. If this is not possible, provide extra clothing and protection (emergency blanket). Prevention is better than cure: wear clothing that is suitable for the prevailing weather conditions.

Heat stroke is the result of a dangerous increase in body temperature. The main cause is physical exertion in hot weather or in high temperatures (e.g. in a deep mine). High humidity exacerbates the situation because it hinders the perspiration process that reduces body temperature. Stop all activity and rest in the shade. Drink cold water - but in moderation, to avoid stomach cramps. Sponge the victim with tepid water to encourage cooling through evaporation. Heat stroke is a more advanced stage of hyperthermia. Wrap the person in a sheet and keep it wet with tepid water. Notify a doctor immediately. Here too, prevention is better than cure. Wear clothing that offers protection from the sun (hat, thin shirts with long sleeves), drink plenty of water and take extra salt to prevent dehydration. Sunscreen (preferably SPF 30 or higher) is essential during fieldwork in sunny areas.

## ***2.8 Health***

- Ensure that you are fit and healthy. Fieldwork often requires higher levels of physical exertion than normal, and involves long working hours.
- Participants should inform the supervisor in advance of the fieldwork or excursion if they have an illness, allergy or physical impairment, or require special medical care. Where appropriate, ask your GP to contact the supervisors.
- If you encounter problems when on a field trip or excursion, inform the supervisors straight away. Tell them immediately if you have difficulty in keeping up with the group; never lag behind.
- A tetanus vaccination may be necessary before departure for the field trip. Ask the supervisors whether other vaccinations are necessary. This is particularly important if you will be working in a non-western country. If necessary, you can check with the municipal health service (*Gemeentelijke Geneeskundige en Gezondheidsdienst*, GG&GD).
- If you will be visiting a remote area and you have doubts about the state of your teeth, visit a dentist before you leave.
- If you feel unwell while on a field trip, seek prompt medical advice. Remember to take proof of health insurance (from your insurer in the Netherlands) with you on the trip. For countries within the EER (EU, Norway, Iceland and Liechtenstein), as well as Switzerland and Austra-

lia, you will need a European Health Insurance Card, which is available from your insurer. This card will simplify the administration relating to medical care abroad.

- Always take a small first-aid kit with you when you go out into the field. Do you know how to use the contents of the first-aid kit? Do you know how to treat minor accidents, abrasions/grazes, insect bites? Treat all wounds - including minor ones - immediately. In warm climates they can quickly become infected. For information about tick bites, see <http://www.ehbo.nl/tips/tekenbeten/>
- If you take prescribed medication, make sure you take a prescription with you so you can obtain a new supply from a local pharmacy in case of an emergency. You may also need to show the prescription when bringing medicines into the Netherlands.

## ***2.9 Rules of conduct for specific locations***

### *Quarry visits*

- Never enter a working quarry without first visiting the site office. Always ask permission (orally or in writing) to visit. You will need to 'sign in' and 'sign out' for each visit.
- Find out about the quarry in advance: ask the people who work there where visitors are allowed to go, which local hazards to avoid, and where you are allowed to take samples.
- Make sure you know all the warning signals for dynamiting.
- For lecturers: Give participants precise instructions for the quarry visit.
- Always watch out for falling rocks/stones. Quarry faces (including those in sand and clay quarries) can be very dangerous and can collapse without warning. Safety helmets must always be worn in quarries, and sturdy footwear is recommended. Samples should only be taken from a quarry face if others are on the look-out for falling rocks.
- Remain at a safe distance from vehicles and equipment. Never touch machinery.
- Never touch or pick up unexploded blasting materials, wires or detonators. If you find such objects, inform the quarry supervisors immediately.
- Beware of mud and quicksand.

### *Sites on railway lines*

- Permission is always required for visits to sites along railway lines.
- Working near railway lines is very dangerous: remember that carriages/wagons can be considerably wider than the rails. Make sure there is enough room if a train passes.
- Never walk through railway tunnels or over railway bridges. During excursions, designate one or more participants to warn of approaching trains and to make sure that everyone stays away from the rails. Don't forget that in some countries, the trains run on the other side of the rails!

### *Sites along public roads*

- Pay close attention to motorised traffic. Some motorists drive very close to the side of the road (on the right or left, depending on the country).
- In groups (excursions), traffic awareness tends to decrease considerably. Keep this in mind.
- Fluorescent (high-visibility) jackets are compulsory.
- Give one or more group members the responsibility to make sure that no-one walks on the carriageway.
- Warn motorists that a group is working by the road. Do not leave behind any mess on the road.

### *Coastal sites and research*

- Always consult the Coastguard (or other body) to find out about tides and local hazards such as unstable cliffs.
- Make sure that you have an escape route in the event of a rising tide.
- Do not go into the sea beyond a depth of half a meter, or if there are dangerous currents. If you are unfortunate enough to become caught in a rip current, try to move out of it by swimming sideways, parallel to the coast.

### *Steep rock faces*

- When climbing up slopes, spread out and do not climb behind the next person to avoid risk of loose rock fall.
- Remember that ascending a slope always seems less dangerous and difficult than descending.
- Do not climb steep rock faces. Use binoculars to study rock that is too dangerous to reach by climbing.
- Always wear a safety helmet when working close to steep faces.
- Do not take risks near steep rock faces. Make sure you do not loosen any rock; there may be others below you. If you do loosen rock, warn others.

### *Below ground*

- If you have to work underground, make sure you are properly equipped and have the necessary experience. Never work underground alone.
- Before you leave, tell someone where you will be working and how much time you intend to spend underground. When you return, let the relevant person(s) know.
- When visiting mines on excursions all participants must follow the supervisors' instructions. Never enter abandoned mine tunnels alone.

## **2.10 Individual fieldwork**

Some of the measures listed below are particularly important for individual fieldwork and therefore apply mainly to fieldwork carried out after the second year of the curriculum.

- When on an individual field trip, arrange accommodation (hotel or tent) where other people are staying. Find out where the nearest telephone and medical facilities are, and what the local emergency numbers are. Take the trouble to learn how to ask for help in the local language.
- Assess the possible safety problems or risks on location at the site of the fieldwork before commencing the work. Draw up a careful work plan, taking account of your experience and training, the nature of the terrain, and the weather. Be careful not to overestimate your abilities.
- Make sure that you always know your map location, and that you know the shortest route to safety. Make sure you know what to do in an emergency (e.g. accident, illness, bad weather, darkness). Always take the following things with you: small first-aid kit, emergency rations (chocolate, biscuits, glucose tablets), emergency blanket (aluminium, or a large plastic bag), whistle, knife, torch, map, compass and watch.
- Take a mobile phone with you, but remember that you might not always be able to receive a signal in remote areas.
- When working in groups: always be aware where your partner is, make clear arrangements for meeting up if you will be working alone.

- Make sure you know the international distress signal.

### *Distress signals*

In the event of an emergency, you can raise the alarm in the following way:

- Six whistles *or* six shouts *or* six flashes with a torch *or* wave a brightly coloured cloth six times.
- Pause for 1 minute.
- Repeat the whistles, shouts, flashes or waving.

The response to these signals is as follows:

- Three whistles *or* three shouts *or* three flashes with a torch.
- This is then repeated.

If you are in distress, it is important not to tire yourself out by whistling or shouting for long periods. Take regular breaks, then continue with raising the alarm.

## **2.11 Activities**

### *Hammers*

- Always use a proper geologist's hammer in the field.
- Use your geologist's hammer with care, and only in places where it is permitted. Never hammer fragments from walls or buildings. The point of a geologist's hammer is used to prize out fragments from rock, not for hammering on rock.
- Safety glasses must be worn when hammering on rock or a chisel, to protect your eyes from flying splinters or shards.
- Never use a hammer as a chisel by striking it with another hammer; this causes metal splinters. Only use chisels made of soft steel.
- Avoid hammering when other people are nearby, and do not watch others while they are hammering. Alert others in the group when you are going to start using the hammer.
- Tidy up after you! Do not leave any rock fragments lying around when you have finished hammering.

### *Drilling in the field*

Hard rock Extracting a small-diameter core sample with portable drilling equipment is a new method for sampling material from rock excavations. Although this is a relatively 'tidy' method compared to sampling with a hammer, there is a risk of completely defacing the rock surface.

Observe the following guidelines:

- Always ask the owner's permission.
- Extract the core samples from the places that are least visible from the public road or access point.
- Refill the core hole as neatly as possible with the same or similar material, or fill the holes with cores of a slightly smaller diameter that have been drilled from loose blocks.
- Respect the regulations regarding hammering in sensitive nature areas (e.g. historic sites of great geological value).

Soft rock As in the previous case, respect local conditions when drilling.

- Choose a location where no-one will be bothered by the drilling.
- Take care not to cut yourself when using gouge bits; they have sharp edges.
- Survey the drilling site thoroughly: avoid cables, pipes, etc.

- Do not leave an open hole after drilling; try to push the sediment back into the hole.
- Take care when transporting drill rods by bicycle.

### *Geophysical instruments in the field*

Instruments are always required for geophysical measurements in the field. Instruments for geophysical fieldwork are usually (much) more elaborate than those for geological work, and therefore always attract a great deal of attention from bystanders. In this case too, it is important to fully respect local circumstances.

- Always ask the owner's permission.
- Tell bystanders what you are doing, and don't invent any stories! Elaborate instruments often give the impression, for example, that the site is going to be developed in the future. Where appropriate, remove this impression and reassure the bystanders. Be open with your information.
- When positioning or removing the equipment, do so with minimum impact on the site. If necessary, take extra trouble to leave the site as it was before you began measuring.
- Observe the safety regulations for the type of equipment you are using. The equipment is maintained by technicians at TU Delft and they will inform you of the relevant safety risks and measure to be taken. Certain instruments can only be used under the supervision of a qualified technician.

## **Appendix 1 Safety and Conduct Declaration**

Declaration of Safety and Conduct during Excursions and Fieldwork

## Declaration of Safety and Conduct during Excursions and Fieldwork

- a. The Undersigned has taken note of the contents of the memorandum '*Veilig op excursie en veldwerk*' (Safety on Excursions and Fieldwork') and, in the case of fieldwork, the H&S Plan and undertakes to comply with the obligations arising for him/her from these documents.
- b. In the event of non-compliance, the lecturer who bears the main responsibility (or his/her deputy) is authorised to exclude the person concerned from further participation in the excursion or fieldwork with immediate effect.
- c. The Faculty of Civil Engineering and Geosciences of TU Delft accepts no responsibility for damage resulting from failure to comply with the obligations arising from the documents specified under point a. In the event that the Faculty of Civil Engineering and Geosciences of TU Delft or a third party incurs damage/losses for which TU Delft is liable as a result of failure to comply with said obligations, the Faculty shall recover the damage/losses from the person who failed to comply with the obligations. The Faculty of Civil Engineering and Geosciences of TU Delft accepts no responsibility for injury or damage resulting from high-risk sporting and other activities that are not directly related to the fieldwork or excursion.
- d. The Undersigned knows of no reasons (including health reasons, e.g. dizziness, heart problems, etc.) that prevent him/her from carrying out fieldwork and/or excursion activities. In case of doubt, the supervising staff should be informed and a medical declaration (from a GP or specialist) provided.
- e. The Undersigned has (additional) medical expenses insurance.
- f. The Undersigned is registered as a student of the Applied Earth Sciences degree programme at the TU Delft

This declaration must be personally signed by the participating student well in advance of departure for the fieldwork or excursion destination. If the person concerned has not signed the form, he/she will not be permitted to take part in the fieldwork/excursion.

Surname + first name: .....

Date of birth: .....

Student number: .....

Participant in fieldwork/excursion: ..... (Fill in course code).

Signature: .....

Date: .....

## **Appendix 2: Emergency Card**

Participants must carry this card with them at all times during fieldwork and excursions. This card must also be kept at all times in vehicles used during fieldwork and excursions.



## Emergency Card for Huesca fieldwork

**General emergency number: 112**  
**Guardia Civil +34 974 210342**  
**H&S Coordinator: Chief, + 31 (0)6 xx xx xx xx**

Name of fieldwork / excursion	Details of nearest hospital	Operator
Reservoir Geological Fieldwork (Huesca) AES1902	Hospital General San Jorge – Huesca Av. Martínez de Velasco, 36 Postal code: 22004 Tel.: +34 974 247 000 Huesca – España	

### What to do in the event of:

#### Fire (field office or storage location)

- Keep calm.
- Report the fire to the object manager.
- Alert persons in the immediate vicinity
- Call 112
- If there is no personal risk involved, attempt to extinguish the fire.
- Inform the employer.

#### Fire (Fieldwork area)


- Call 112.
- If there is no personal risk involved, attempt to extinguish the fire.
- Persons who are not involved in extinguishing the fire must leave the area immediately.

#### Accident (with emergency response: see ERT procedure on the reverse)

- Keep calm.
- If necessary, alert the emergency services.
- Provide first aid.
- Inform the Field Party Chief.

## **Appendix 3: Report form for accidents, incidents and in-house emergency response**

This form must be completed and submitted to the HSE advisor as soon as possible after the incident.

	FORM FOR REPORTING ACCIDENTS, INCIDENTS AND ERT-deployment	
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*To be filled in by reporter, manager or ERT-member, possibly with support from the HSE-advisor (AMA)*

**I. Details of reporter (person who fills in this form)**

Name: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Management unit/company: \_\_\_\_\_ Department / location \_\_\_\_\_  
 Signature (only on paper): \_\_\_\_\_ Date of report: \_\_\_\_ - \_\_\_\_ - 20\_\_\_\_

**II. Way of alarm / type of accident / # of ERT involved**

<input type="checkbox"/> Pager	<input type="checkbox"/> Accident	<input type="checkbox"/> Health problem	<input type="checkbox"/> Others _____
<input type="checkbox"/> Telephonic	<input type="checkbox"/> Gas	<input type="checkbox"/> Unsafe situation	<input type="checkbox"/> # of ERT involved _____
<input type="checkbox"/> Oral	<input type="checkbox"/> Fire	<input type="checkbox"/> False / unnecessary report	<input type="checkbox"/> # of ERT with respirators _____ involved

**III. Description of the event**

What kind of activities were carried out and what happened?

**IV. Details of event**

Date of event: \_\_\_\_ - \_\_\_\_ - 20\_\_\_\_ Time of event: \_\_\_\_\_ hrs  
 Place / Location: \_\_\_\_\_

Type & place of injury / damage

Resume work within 24 hours?  yes  no Seriousness of injury:  temporary  unknown  
 permanent

Medical treatment:  no  First Aid  A&E / ER  Hospitalization  
 Family doctor

**V. Details of victim**

Name: \_\_\_\_\_ Date of birth: \_\_\_\_ - \_\_\_\_ - 20\_\_\_\_  
 Address: \_\_\_\_\_ Place: \_\_\_\_\_

Employee TUD  Student  Employee company  Visitor  Passer-by

Management unit / name of company: \_\_\_\_\_  
 Department / address: \_\_\_\_\_  
 Name superior / contact person: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Temporary place of stay: \_\_\_\_\_ Telephone: \_\_\_\_\_

- Reporter mails the fully completed form to the Ama and the coordinator ERT.
- HSE-advisor sends copy to other recipients when necessary (possibly also to victim and superior)

## EXPLANATION

This form is filled in by the discoverer or reporter of the event, or together, or by the superior, in case of absence. When ERT'er is in charge, ERT fills in the form. The HSE-advisor (AMa) can give support.

### I. Details of the reporter

Name of the person who has filled in the form.

Reporter gives his/her unit and department, such that he/she is traceable.

### II. Type of report

Is for later research and to justify the use of ERT staff. Therefore the HSE-advisor sends a copy of the filled-in form to the central ERT-coordinator of the TU Delft.

With 'health problem' is meant being unwell. The detection of smoke of cigarettes by fire alarm is considered a false/unnecessary report.

### III. Description of event

Describe the activities that were carried out and mention the labour resources and/or materials. If possible, describe the (likely) cause.

### IV. Details of the event

Mention date, time and place of the event.

In case of injury/damage, give an indication. To your evaluation, mention whether there is a chance of the injury being of a permanent nature (tick what is applicable).

Evaluate whether the work can be resumed within 24 hours.

In case of medical treatment, indicate what type of treatment has been provided. (First aid means treatment in the field by a co-worker or ERT; not treatment at A&E/ER.

In case of permanent injury and hospitalization, the HSE-advisor needs to report the incident to the "Arbeidsinspectie" (Labour Inspection) immediately. That's why the HSE-advisor needs to be informed promptly.

### V. Details of the victim

Fill in the details of the person involved. The name of the superior of the victim, both for the employee of the TUD and the employee of the company; this is important for possible research to be carried out later.

In case an employee of a company is involved, also the contact person within the TUD is mentioned, telephone number inclusive. This makes research after the cause of the accident easier.

After the occurrence of the undesired event, this form needs to be filled in immediately and forwarded to the HSE-advisor (not being sent by snail-mail; especially **not** when it concerns accidents that need to be reported to the "Arbeidsinspectie" (Labour Inspection).

The HSE-advisor sends a copy to those who need to be informed.