

CLS School of Research Annual Health & Safety Return 2011



Introduction

Safety Services have requested that this year's annual return should take the form of a short narrative explaining how three key risks are managed within CLS, together with one specific risk assessment for each risk listed. This document deals with the two risks specific to the School of Research:

1. Risk assessments completed by research staff/students are not 'suitable and sufficient'.
2. 24/7 working, 365 days per year.

The third key risk, competence of demonstrators, will be dealt with in a separate report submitted by the School of Life Sciences Learning & Teaching.

1. Risk assessments completed by research staff/students are not 'suitable and sufficient'

i. How is this risk managed in CLS?

- CLS has a clear risk assessment policy (see Appendix A) identifying those responsible for ensuring suitable and sufficient risk assessments are in place for all work activities. The policy was formally approved by the CLS H&S Management Committee in 2006 and brought to the attention of all CLS personnel via email. It can be easily accessed from the main menu of the CLS H&S Web Site.
- All new recruits complete a Basic H&S Training Checklist as soon as they start work and this includes an introduction to the CLS Risk Assessment Databases.
- New Recruits attend a Health & Safety Induction Seminar (held monthly) where they learn about the risk assessment process in general and the requirement for risk assessment is reinforced. They are also given a more detailed demonstration of the Risk Assessment Databases, including how to search for a specific assessment and how to register their name and the date to signify that they have read and understood an assessment. The mechanisms for getting new assessments completed and approved are also explained.
- The Risk Assessment Databases are available to everyone who has a Life Sciences Directory account and are easily accessed from the CLS H&S Web Site homepage. The databases contain a good number of assessments (currently 298 general assessments and 102 GM assessments) and safe operating procedures (currently 123) which provide a wealth of worked examples for anyone creating a new assessment to follow. Completed assessments are submitted for approval via email and the database clearly shows approval and review dates. Personnel are advised only to trust approved assessments/procedures. Most assessments are scrutinised and

approved by the University GM and Biological Safety Committee or the CLS H&S Working Group. Only a few authorised individuals can enter approval details. Assessments are usually reviewed either annually or three yearly depending on the type. However, if information comes to light indicating that an assessment is not suitable and sufficient, e.g. and accident/incident report, it will be revised immediately.

- Risk assessment training is delivered by Safety Services and in-house by CLS H&S. Only trained assessors are given 'edit' access to the risk assessment databases, enabling them to create and modify assessments. All other database users have 'read only' access.

ii. Further Action Required

- The risk assessment policy is not consistently implemented throughout the School of Research. As a result, not every work activity is covered by a suitable and sufficient risk assessment at present. Line Managers at all levels must ensure their subordinates understand and fulfil their H&S responsibilities.
- Only a small group of people, mainly the SLSLT Technical Team and H&S Working Group members, have received formal risk assessment training. In order to produce more suitable and sufficient risk assessments, more people have to be trained and the emphasis needs to be on getting research staff and students up to speed. The latest proposal is to target new PhD students and make risk assessment a mandatory element of their Generic Skills training. Lab Managers will also undergo training to ensure they are competent to provide help and advice on all aspects of the risk assessment process.

iii. Risk Assessment

- See Appendix B for an example of a risk assessment completed by a research student.

2. 24/7 working, 365 days per year

i. How is this risk managed in CLS?

- CLS has a clear Lone and Out of Hours Working policy (see Appendix C) which clearly allocates responsibilities for ensuring the safety of lone/out of hours workers. The policy was formally approved by the CLS H&S Management Committee in 2005 and brought to the attention of all CLS personnel via email. It can be easily accessed from the 'Other' main menu item on the CLS H&S Web Site.
- The CLS approach focuses on the individual worker and ensuring they understand the additional risks that lone/out of hours working carries and what action to take in the scenarios that might arise in lone/out of hours working circumstances. This is achieved through the Lone and Out of Hours Workers' Information sheet (see Appendix D) and Lone and Out of Hours Workers' Questionnaire (see Appendix E).

- All new recruits complete a Basic H&S Training Checklist as soon as they start work and this includes information on the lone and out of hours working policy, information sheet and questionnaire.
- New Recruits attend a Health & Safety Induction Seminar (held monthly) where personnel are reminded about the policy, information sheet and questionnaire.
- As noted in the policy, the general, structured risk assessment form includes a 'Prohibit Lone Working' checkbox in the Controls section and assessor training covers the need to consider lone/out of hours working scenarios when carrying out a risk assessment and stipulate any necessary, additional controls.

ii. Further Action Required

- Seventy-two Research Group Leaders were surveyed by email in March 2011 to ascertain how many were aware of the Lone and Out of Hours Working policy and procedures and how many implemented them within the group. 22% responded to say they were aware of the policy/procedures. Only 11% responded to say they implement the policy/procedures within their group. Full details are given in Appendix F. This demonstrates that, despite the measures identified above, a significant proportion of Group Leaders are completely unaware of the policy/procedures. This must be tackled by ensuring effective communication of the policy/procedures not just to new recruits but also to existing staff. Line Managers need to take action in cases where personnel are aware of but choosing not to comply with policy/procedures.
- A constant security guard presence within the research complex outwith normal working hours has been identified as an important risk reduction measure. This has not been achievable in recent years due to staffing shortages within the Campus Security team. CLS H&S are currently awaiting clarification from Campus Security/Estates and Buildings on the current situation.

iii. Risk Assessment

- There are no risk assessments specifically for an activity undertaken outwith normal working hours. The activities carried out in the lab outwith the core hours of 8.30am to 5.30pm, Monday to Friday, are essentially the same as those undertaken during core, or normal working, hours. CLS has taken the approach of addressing the additional/increased risks that out of hours working brings via the Lone and Out of hours Workers' Information Sheet and Questionnaire rather than separate, specific risk assessments. However, assessors are trained to bear lone/out of hours working scenarios in mind and consider prohibiting lone/out of hours working if the additional/increased risks cannot be effectively controlled.

Appendix A

CLS Policy on Risk Assessment of Work Activities

(Approved by CLS H&S Management Committee on 3/11/06)

Risk assessment is basically a careful examination of what, in your work, could go wrong and cause harm or damage to yourself, others, work premises/equipment or the external environment. Risk assessment also involves making a decision on what precautions to take to minimise the risk of an accident or incident happening.

- All work activities undertaken on CLS premises must be risk assessed and the risk assessments must be recorded in the CLS Risk Assessment Database System or on some other official University electronic or hardcopy form.
- Risk Assessments must be reviewed every three years, or sooner if the activity changes significantly, control measures are found to be inadequate or there is any other reason to believe the assessment is no longer valid. More frequent review is encouraged if time permits.
- Line Managers/Supervisors are responsible for:
 - Ensuring suitable and sufficient risk assessments exist for all work activities carried out by their team/group members and any other personnel under their supervision. Checking and approving new assessments produced by the individuals referred to above.
 - Ensuring the individuals referred to above read, understand and sign the risk assessments relevant to them.
- The CLS Health & Safety Working Group is responsible for:
 - Providing training and information on the CLS Risk Assessment System and risk assessment in general. Advising and assisting personnel in the completion of risk assessments. Maintaining the CLS Risk Assessment Database System.
 - Checking the quality of CLS risk assessments through random checks and formal inspection.
- Those undertaking the work activity are responsible for drafting the risk assessment. It requires first hand knowledge of the task to produce a suitable and sufficient risk assessment.
- Academic Teaching Staff are responsible for ensuring undergraduate practical activities are risk assessed and that the key aspects of the assessment are communicated to the students before the practical commences.
- Technical Teaching Staff are responsible for drafting risk assessments for the practical classes they are involved in.
- All CLS personnel must:
 - Participate in the risk assessment process.
 - Before undertaking a work activity for the first time:
 - read and understand the risk assessment for the activity they are about to undertake; be given the opportunity to ask questions about the assessment; sign and date the assessment on the appropriate page;
 - or, if no assessment is available, inform their Line Manager/Supervisor.
 - Implement the necessary precautions (also referred to as control measures) as identified in the risk assessment.
 - Report immediately to their Supervisor and General Health & Safety Adviser if they think the precautions are inadequate or inappropriate.
 - If a work activity changes, ensure that the relevant risk assessment is updated accordingly and repeat the read/understand/sign process.
 - Ensure assessments are reviewed as required.

Appendix B

CLS Risk Assessment

Assessor: Rachel Berry
Designation: MSc Student
Approver: Lisa Grayson
Approval Date: 27/5/2008
Review Date: 27/5/2011

Serial Number: 298 **Version:** 1
Created: 27/5/2008, 20:35:10, lgrayson
Modified: 23/7/2009, 10:53:05, lgrayson

Title: Use of Deuterated Water by Research Participants

Location of Activity: Homes of participants

A. Summary of Activity and Key Points

The deuterated water used in this study will be a mixture of 20,000 to 1 (i.e. 1ml of deuterated water will be added to 20L of tap water), resulting in a deuterium abundance of 0.019 atom%. This deuterated water will be placed in 20L containers with a dispensing tap, and distributed among participants for storage in their homes. The deuterated water will then be consumed by participants in their cooking and as drinking water. Deuterated water is routinely used in the doubly labelled water method, and has been consumed in higher concentrations than proposed by this investigation by newborns, infants and adults, and other mammals.

B. Risk Assessment

No adverse side effects are anticipated from consumption of the deuterated water, as deuterium (^2H) occurs naturally, albeit more dilute than the study water (0.015 atom%). Deuterated water is also routinely used in higher concentrations in the doubly labelled water method (a standard procedure for investigating energy expenditure). This technique has been used and validated in many species of animal (Speakman and Racey, 1988, Ballevre et al., 1994) and also in humans throughout all stages of life (Koletzko et al., 1998, Koletzko et al., 1997, Gottlieb et al., 1999, Westerterp et al., 1991).

There are no risks anticipated with handling the deuterated water as it has properties similar to those of normal water such as ease of handling, chemical stability, and non-reactivity (Becker and Coplen, 2001).

It is emphasised that before proceeding with this investigation, the proposed research will have been scrutinised and approved by The University of Dundee's Research and Ethics Committee.

Hazards: What Could cause harm/damage?

1. Heavy 20L containers.
2. Increased risk of electrocution.
3. Slipping on spilt water.
4. Illness through consumption of stagnant water.

Risks: Who/What could be harmed/damaged and how?

1. Participants lifting the 20 litre containers may be at risk from musculoskeletal injuries, primarily to the back and upper limbs.
2. Participants may be at risk from electrocution if handling the deuterated water whilst in contact with an electrical source.
3. Participants may injure themselves by slipping on spilt water.
4. Participants may fall ill due to consumption of stagnant water from the 20 litre containers.

Controls: What could be done to prevent harm/damage?

1. Individuals should have assistance lifting the 20 litre containers.
2. Participants should be given advice on manual handling by trained staff.
3. 20 litre containers should be stored at a lower level to minimise vertical lifting and away from electrical sources to minimise risk of electrocution.
4. Common sense precautions should be taken to minimise the risk of electrocution, for example, drying

hands properly after handling the deuterated water.

5. All spillages of deuterated water should be cleaned up immediately.

6. The deuterated water in the 20 litre containers will be disposed of and replaced with fresh water every three days.

References

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Appendix C

Lone & Out of Hours Working

(Approved by CLS H&S Management Committee on 25/11/05)

Lone working is defined as working unaccompanied for a sustained period of time without immediate physical access to assistance from a colleague and in an area where personnel are not frequently passing through.

Out of hours is defined as any time outwith the normal working hours of 8.30am to 5.30pm, Monday to Friday.

Policy

CLS requires all personnel to employ careful planning and disciplined working arrangements to reduce instances of lone/out of hours working to a minimum. In situations where lone/out of hours working cannot be avoided, steps must be taken to ensure the safety of the workers.

Arrangements

a) Line Managers - including Research Group Leaders, Academic Teaching Staff and Clerical/Technical Staff Team Managers - are responsible for ensuring that in all instances of lone/out of hours work undertaken by their team/group members (including undergraduate summer and project students), the risks are carefully considered and appropriate control measures are assigned to minimise these risks. The general, structured CLS work activity risk assessment form has been adapted to include a 'Prohibit Lone Working' checkbox in the Controls section. Assessor training covers the need to consider lone/out of hours working scenarios when carrying out a risk assessment and stipulate any necessary, additional controls. This is in preference to having a separate assessment form specifically for lone/out of hours activities.

b) Line Managers are also responsible for ensuring that only fully competent and able personnel undertake lone/out of hours work. To assist in this process, all personnel preparing to undertake lone/out of hours work for the first time must read the [Lone & Out of Hours Worker's Information Sheet](#) and complete a [Lone & Out of Hours Worker's Questionnaire](#)* and submit this to their Line Manager. The Line Manager must address any negative responses before giving permission for the lone/out of hours work to proceed. Completed questionnaires and any associated records must be retained by the Line Manager for as long as the worker is a member of their team/group.

*It was decided by the CLS H&S Management Committee that only new recruits joining the School on or after the 1st of January 2006 are expected to complete and sign a Questionnaire. In all other aspects, this policy applies to all CLS personnel, new and existing.

c) Personnel preparing to undertake lone/out of hours work are expected to participate in the risk assessment process and read and sign all risk assessments relevant to their work activities. While undertaking lone/out of hours work, personnel must implement all control measures specified in the relevant risk assessment(s).

d) If a supervisor is appointed to oversee out of hours work, the worker's Line Manager must ensure the appointee is competent to do so and fully aware of the relevant risk assessment(s) and their responsibilities.

e) If the risks cannot be adequately controlled, i.e. reduced to a level where they are rated by the assessor as low, the activity must be restricted to normal working hours and/or normal working conditions when full support and access to assistance is readily available.

f) Monitoring mechanisms for lone/out of hours work are as follows.

- Inspection of risk assessments and checklists during regular, general H&S inspections.
- Analysis of feedback from lone/out of hours workers and security staff.

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Appendix D

Lone and Out of Hours Workers' Information Sheet

- In instances of lone working the major concern is that the worker becomes ill or is injured to the extent where they are unable to summon assistance. If they go undiscovered for a period of time their condition may deteriorate, perhaps to the point where it is fatal. Remember, lone working does not necessarily occur outwith normal working hours
- Out of hours working is not necessarily done alone. The two major concerns are:
 1. The absence of support in the event of an incident, accident or other emergency. Lab Managers, Fire Wardens, First Aiders, Radiation Protection Supervisors and Safety Services staff are not normally on site outwith normal working hours.
 2. The likelihood of intruders, or other undesirables, being present in and around the building is higher outwith normal working hours, especially during the hours of darkness, so the risk of violent attacks on personnel increases.
- The highest risk scenario, and therefore the one that gives greatest cause for concern, is when the work is done alone and out of hours.
- Some key control measures designed to ensure the safety of lone/out of hours workers are detailed below. Are they being implemented in your area? If not you should raise this with your Line Manager or a member of CLS Health & Safety Personnel.
 - Lone Workers must receive adequate training and instruction, especially in security, emergency and spill procedures.
 - Line Managers should carefully assess the need for supervision of out-of-hours work, taking the workers level of experience and competency into account. Appointed supervisors must be experienced and fully competent.
 - Where formal supervision is not necessary, operate a buddy system, i.e. an arrangement is made between colleagues to check in with each other at regular intervals, especially on arrival and prior to leaving the building.
 - Workers must make sure at least one person knows where they are working and when to expect them home (in the case of out of hours work) or back in the main lab (in the case of lone working during normal hours). If the worker does not return when expected their contact, without putting themselves at risk, should attempt to confirm that the worker is safe and well. If there is cause for concern, alert a senior member of CLS staff or University Security immediately.
 - All workers must keep an Emergency Numbers Card with their swipe/proximity card and carry both cards on their person while at work.
 - Workers are advised to carry charged mobile phones programmed with emergency telephone numbers.
 - Workers must avoid carrying out operations that carry a medium or high risk of harm – for example: handling large volumes of flammables; working with very toxic substances; performing reactions that may be vigorous or hard to control; working with sources of ignition; working with asphyxiant gas; handling heavy objects; working with large amounts of radioactive substances. Restrict such steps to normal working hours or assign additional controls to reduce the risk.

Appendix E

Lone and Out of Hours Workers' Questionnaire

- All personnel preparing to undertake lone/out-of-hours work **for the first time** must read the Lone and Out of Hours Workers' Information Sheet, then complete the following questionnaire, sign it (see page 2) and submit it to their Line Manager.
- Line Managers must address any negative responses before giving permission for the worker to proceed.
- Completed questionnaires and any associated records must be retained by the Line Manager.

1. Are you medically fit for lone working? <i>Conditions repeatedly causing sudden attacks that leave the individual unconscious, disorientated or requiring urgent medical attention, may rule out lone working.</i>	Yes / No (delete as applicable)
2. Do you consider yourself sufficiently experienced and competent to work alone and/or outwith normal working hours? <i>Read the Lone & Out of Hours Workers Information Sheet before answering this question.</i>	Yes / No
3. Does your supervisor agree with the above?	Yes / No
4. If you feel threatened, become ill or are injured do you know how to quickly summon emergency assistance, i.e. do you know the University Emergency Contact numbers and the location of the nearest phone? <i>Emergency Numbers Cards are available from WTB & JBC Reception and your Lab Manager.</i>	Yes / No
5. If you become ill or injured to the extent where you are unable to call for help and are at risk of going undiscovered for some time, or if you become trapped somewhere in the building, e.g. in a lift, will someone realise that you are missing, i.e. notice that you have not returned home/to the lab when expected?	Yes / No
6. Can you avoid working in areas/rooms where you may become trapped (e.g. cold rooms, stairwells, basement corridors, lifts) or where it may be difficult for emergency assistance to reach you (e.g. secure areas with coded locks)?	Yes / No
7. If you have a chemical/biological/radioactive spill do you know how to deal with it? <i>Spill procedures are detailed in the CLS SOP Database. See you Lab Manager/H&S Adviser for further details.</i>	Yes / No / Not applicable
8. Do you know what to do if a fire breaks out or if the fire alarm sounds? <i>The Fire procedure is detailed on the CLS H&S web site. See your Lab Manager/H&S Adviser for further details.</i>	Yes / No
9. Do you know your emergency exit routes, your fire assembly point and who to report to outwith normal working hours? <i>As above.</i>	Yes / No
10. Have you read and signed the relevant risk assessment(s) and are you equipped to apply all the necessary control measures? <i>Risk assessments are held in the CLS Risk Assessment Database. See your Lab Manager/H&S Adviser for further details.</i>	Yes / No
11. Do you know the safest entrances, exits, carpark and routes to use in out-of-hours situations?	Yes / No
12. Are you aware of the steps you should take to preserve the security of the building? <i>Security procedures are detailed on the CLS H&S web site. See your Lab Manager/H&S Adviser for further details.</i>	Yes / No
13. Do you know how to deal with suspected intruders/break-ins? <i>As above.</i>	Yes / No
14. Do you know who to report accidents, incidents and near misses to? <i>This must be done at the earliest opportunity.</i>	Yes / No

Appendix F

Lone and Out of Hours Working Policy & Procedures Awareness and Implementation Survey

Survey Email

From: Lisa Grayson
To: PIs main campus non mrc
CC: Ian Scragg; Irene Blair; Robert Ford
Date: 16/3/2011 15:39
Subject: ACTION REQUIRED: Lone and Out of Hours Working Policy & Procedures

Dear All,

Doreen has asked me to conduct a quick survey regarding awareness and implementation of CLS Lone and Out of Hours Working policy and procedures (view online at https://www.lifesci.dundee.ac.uk/services/healthandsafety/other-topics/lone_working/lone_home.html).

Could you please respond by Monday the 4th of April if (a) you were previously aware of the above and (b) if you implement them within your own group/unit/division. If the answer is 'no' to both a & b there is no need to respond.

This is purely to give an initial indication of how effectively we are communicating and implementing H&S policies and procedures.

Many thanks and best wishes,

Lisa.

Results

72 recipients
19 responses
16 aware of policy/procedures (22%)
8 implementing (11%)