School of GeoSciences
Health & Safety Committee
Minutes of Meeting held on 31st January 2011

Present:
(DC) Dick Kroon (Chair)
(HP) Helen Pearson (H&S Manager for School)
(GW) Gordon Waugh (Facilities Manager)
(SG) Stuart Gilfinnan (Research Staff)
(MS) Mike Summerfield (Teaching Organisation)
(MW) Mathew Williams (Crew)
(PN) Peter Nienow (Graduate Organisation)
(RS) Rob Shore (Grad School)
(AN) Anthony Newton (Drummond) - deputising for Frank Mayle who is on Sabbatical

1 Apologies

Martin Siegert, Frank Mayle

2 Minutes of last meeting

The previous minutes of September 2010 and were agreed, with a few minor typing corrections.

3 Review of actions from last meeting

3.1 Actions completed since last meeting

Date	Minute	Action	Action by	Deadline	Status
20/3/09	4	Policy update Section 12.2	Changed to HP	End April	Complete. Committee agreed to review one section per meeting going forward.
2/3/10	2	Follow up on lab report actions	HP	Jun 10	New lab report complete. Now need to issue to users.
2/3/10	5	MJS would like to know who had completed IOSH managing safely course.	HP	Jun 10	Complete
13/09/11	6	Contact Geraldine Halliday in Finance office to check	HP	Dec 10	Complete
13/09/11	7	Spread the word that HP will be reviewing fieldtrips	All	Dec 10	Complete

3.2 Actions still outstanding since last meeting

DK reviewed the actions from the previous meeting;

Date	Minute	Action	Action by	Deadline	Status
2/3/10	9	Create inventory of High risk equipment	HP/MW/FM	Jun 10	Outstanding
13/09/11	9	Look into funding & apply if possible. Order 3 defibrillators as finances permit	HP	Dec 10	Outstanding

4 Accident statistics / Accident reporting

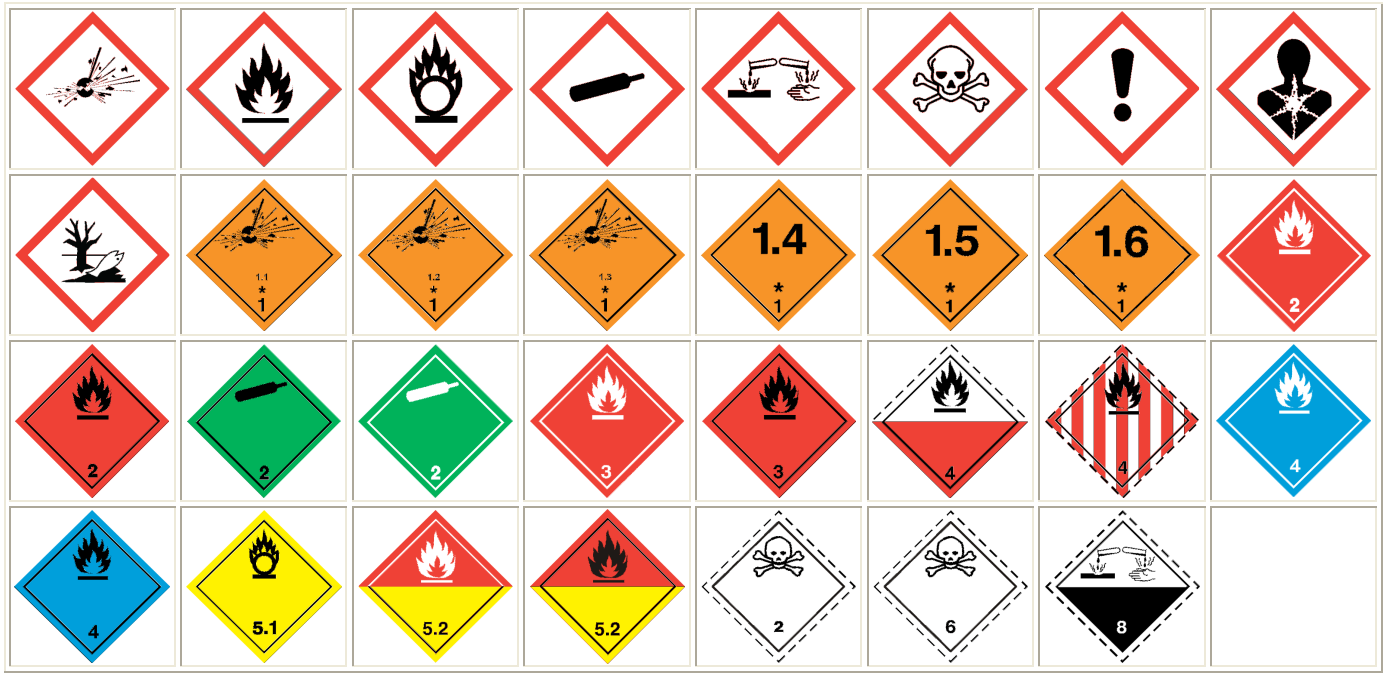
Location	Date	Person	Report
Inchnamph Field Trip 2	10/9/2010	Student	Student discovered tick and then developed typical Bull's eye rings of Lyme Disease. Was been given antibiotics from Doctor. Trip was risk assessed and ticks are included as this trip involves crossing & working within a lot of wild country. Students are also advised to check themselves in the shower at the end of the day. First aid kits contain tick removers and first aiders are trained to use them. A few had been earlier in the trip from other students and staff.
Room 224 Grant	4/10/2010	Staff	After a call received from one of the cleaners informing of a weird smell (possibly gas) coming from room 224 of the Grant, security reported that room 224 was filled with gas which has spilled into the adjacent corridor. Gordon Waugh was called out for the building and informed of situation. He asked if Security could cordon off the corridor until he arrived onsite. The area was cordoned off using tape and a note also left by security explaining the situation. Concerns raised by Gordon were that there were no Fire Alarm detectors within the ground floor corridor areas, he will discuss matter with Jim Hogg. Gordon further explained cause for smoke and smell was due to a burnt out pump.
Drummond Street	8/10/2010	Student	The student was opening the door of her office and managed to pull the door over her shoe and somehow managed to break the toe nail, causing it to cut underneath. Due to it bleeding, she used a dressing from the first aid box in the corridor.
GC Lab, Crew Labs	12/10/2010	Student	A PhD student was attempting to perform analysis on the GC when the gas supply ran out; another individual had been asked to assist. On the arrival of the 2nd individual, mid-way through the replacement of the carrier gas feeding the GC after the new gas bottle had already been connected to the system, they instantly noticed that the new gas bottle that had been attached was Hydrogen, a gas that although is sometimes used as a carrier gas on GCs, is normally avoided due to the hazards associated with it. Despite the lack of familiarity with the particular GC system in question, the 2nd individual thought it odd that hydrogen would be used in such a system. After inspecting the empty cylinder that had been removed, it was discovered the normal supply gas was a Argon/Methane mix (10% methane). Both gases are considered flammable, thus both gas bottles had left-hand threads, as is the standard for flammable gases, enabling the connection of incorrect gases to the system. As a result of this discovery of the incorrect gas being connected, the hydrogen was shut-off immediately preventing any serious incident occurring. In addition to this, it appears that the system is also running compressed air for some other operation; however, this particular GC system is operating an ECD (electron capture detector) which normally requires a Nitrogen supply. The use of compressed air is potentially introducing oxygen into the detector; this will have a detrimental effect on the detector, potentially rendering it inoperable (and expensive to repair), depending on the length of time the detector was exposed to oxygen.

			It is believed that this situation arose because an inexperienced PhD student was left to change a gas bottle by herself on a system which she was essentially unfamiliar with. Her supervisor(s) should have ensured that she was fully trained in procedures such as changing gas supply bottles; not just attending a gas safety course, but also hands-on practical supervision of such routine operations as changing gas bottles, as well as providing a fundamental understanding of why certain gases are used for their particular analysis. It is understand that the student had actually contacted her supervisor, who was unable to help. Following this, a gas safety course was organised for PhD students and their supervisors as students should be able to go to their supervisors for help. There has also been clearer labelling marked on the GC system to help prevent wrong gases from being connected in the future,
SJML	17/11//2010	Staff	An individual tripped on the step outside the SJML due to poor lighting in the dark evening. E&B are going to review the lighting in the whole area and upgrade as necessary.
Crew Labs	14/10/2010	Staff	This is still being investigated by corporate H&S team and is being decided whether it needs to be reported to HSE as a reportable incident. An individual was checking the functionality of a detector on our laboratory instrument prior to an engineer visiting from the manufacturer. In order to test the instrument, a number of gas standards are analysed. The gases in question are collectively as halogenated methane, or methyl halides. The gases were at approximately 100 ±3 ppm in each of the cylinders. In order to ensure a clean analysis of gases, the general protocol is to fill a Tedlar gas sample bag from the cylinder, and then sub-sample from the gas bag. Sub-sampling of the gas bag involves drawing a sample into a 20ml syringe three times, but to ensure the gas sample is not contaminated with ambient air, the first two syringe fills are vented via a 3-way valve. Given the intricate nature of this procedure, it was conducted at approximately face level, at less than an arms length away. The sampled gas is then injected into the instrument. The procedure described here was conducted 15-20 times in a single day, over the course of 4 or 5 days between mid-September and mid-October 2010. This should have been undertaken in a fume hood and was not. In addition the information form the supplier was inadequate to complete a comprehensive COSHH assessment. The individual suffered ill health effects which may be linked to these gases but given the time between realising the connection with working with the gasses and his symptoms, no meaningful tests could be undertaken by the doctor. The 100ppm gas standards have now been taken out of use, and removed from the building. They are currently located in the outside gas cage ready for suitable disposal after consultation with the Chemistry department. As using these gases is unavoidable (they are the specific gases required as part of the research project), they have been replaced by cylinders of lower concentration. The new CH3I gas cylinder will remain outside in the gas cage for the duration of the project, and filling of gas bags will be conducted outside in naturally flowing air. Further dilutions from this gas bag will be conducted within a fume hood in the Crew Labs. In addition, plans are being considered how to implement a means of venting the instrument exhaust outside of the laboratory, to ensure that no gas can escape into the ambient lab air if not destroyed in the detector of the instrument. A complete review and revision of the laboratory COSSH form inventory is underway to ensure all paperwork is up to date. The suppliers will be contacted to discuss the lack of information on the datasheets they provide.

5 Legislation Update

5.1 2nd Adaptation to Technical Progress of the European Regulation on the Classification, Labeling and Packaging of substances and mixtures (CLP)

The CLP is an EU Regulation that applies directly in member states without being transposed into domestic legislation. The CLP is the means by which the EU has adopted the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The GHS was created and published in 2003 following an internationally agreed mandate for "a globally harmonised hazard classification and labelling system, including safety data sheets and easily understandable symbols". The 2nd Adaptation to Technical Progress amends the CLP Regulation to adopt the changes made in the latest edition of the GHS, which is updated on a biennial basis to reflect evolving scientific developments. The 2nd ATP is expected to become law early in 2011 and to include transitional periods before duty holders have to comply - the earliest of these is expected to be at least 18 months.



5.2 Amendments to the Genetically Modified Organisms (Contained Use) Regulations 2000

On the 21 December 2010 three minor changes were made to the existing Genetically Modified Organisms (Contained Use) Regulations 2000 (the 2000 Regulations) to insert requirements set out in European Directive 2009/41/EC but not included in the original Regulations.

The changes to the Regulations are:

- Including “the disposal of waste and effluent” in the existing list of matters to be considered by your assessment of the risks to human health and the environment.
- A clarification of the characteristics of genetically modified micro-organisms which it will be appropriate to include as Class (1), i.e. ‘no or negligible risk’ micro-organisms, has been added to the steps to be taken when carrying out a risk assessment (see below).
- An explicit requirement for biohazard signs to be displayed on the doors of the facility where Class 2, 3 or 4 activities are being undertaken.

It is HSE’s view that the existing guidance produced by the Scientific Advisory Committee on Genetic Modification covers these matters and therefore it is unlikely that you will need to make any changes.

These changes are being made because the 2000 Regulations are requirements of a European Directive and the European Commission is of the view that the Regulations did not adequately implement three aspects of that Directive. The UK faced a possible significant fine if it did not act.

5.2.1 Waste disposal

You are unlikely to need to change your existing risk assessment because of the inclusion of an explicit reference in the Regulations to assessing the risks arising from disposal of waste and effluent. The SACGM guidance on risk assessment (part 2) refers to the need to consider waste disposal (especially in relation to potential environmental impacts) and covers appropriate measures to be taken to ensure that waste is inactivated before disposal (part 3, section 3.5).

Where you or other people at your facility use a standard format to record your GM risk assessments you may wish to consider whether it should include a specific prompt to consider disposal of waste and effluent, if it does not do so already. However, this is not compulsory, as the format for recording risk assessments is not specified.

5.2.2 Clarification of Class 1 - Meaning of the term 'recipient or parental micro-organism'

The clarification of Class 1 genetically modified micro-organisms in full is: "recognition that, in general, only activities involving genetically modified micro-organisms which show the following characteristics are appropriate for inclusion in class 1 as described in Schedule 1 —

- the recipient or parental micro-organism is unlikely to cause disease to humans, animals or plants,
- the nature of the vector and the insert is such that they do not endow the genetically modified micro-organism with a phenotype likely to cause disease to humans, animals or plants, or likely to cause deleterious effects on the environment, and
- the genetically modified micro-organism is unlikely to cause disease to humans, animals or plants and is unlikely to have deleterious effects on the environment;".

The above clarification of the meaning of Class 1 refers to the 'recipient or parental micro-organism'. This description is taken directly from the Directive and is consistent with the description in the 2000 Regulations of information that should be notified to HSE. The terms 'recipient' and 'parental' micro-organisms are considered to be interchangeable, and refer to the organism into which 'donor DNA' or 'insert' is being cloned via a vector system. For the majority of work involving genetic modification it will be clear which organism is the donor and which is the recipient/parental organism.

An example of work that will meet the criteria for class 1 is cloning many sequences from a pathogenic micro-organism (the insert from the donor micro-organism) into a disabled strain of E coli (the recipient or parental strain e,g,K12) if the final genetically modified micro-organism is unlikely to cause disease to humans, animals or plants and is unlikely to have deleterious effects on the environment.

5.2.3 Display of biohazard signs

If you are carrying out Class 2, 3 or 4 activities, you must ensure there is a biohazard sign on the doors of the facility. This sign should be the standard biohazard sign (as below); use of a written hazard warning in addition is optional:

If the facility is within a larger building, other areas of which are not used for Class 2, 3 or 4 activities, it will be appropriate to put the sign only on the door at the entrance to the facility itself e.g. specific laboratories/ controlled areas. However, you should also consider whether all appropriate parts of the facility have been included – for example, where waste or effluent treatment equipment is located outside of the immediate work area.
Use of the biohazard sign for containment level 1 facilities is not required.

6 Results of Fire Drill in Drummond Street & Crew Annexe.

6.1 Drummond Street

There was a bit of a mix up with this by the corporate fire team. They gave different times to different people and the alarm went of twice in some areas when they tested another building nearby. People evacuated well on the whole but there was a note made that other exits rather than the main front door should be used if they are closer. GW reported that Archaeology would need to be sealed off soon for asbestos removal and that would not be an available exit.

6.2 New Crew Annexe

It was reported that when the fire alarm went off a guest lecturer went out to see what was going on and then went back inside and continued teaching.

Action: MS to add part into staff handbook re fire alarms and evacuations.

A question was asked whether HP sent out an annual newsletter to staff with reminders and updates. This is currently done but something that could be considered.

Action: HP to consider annual newsletter.

7 Lab Audit report

The findings of the lab audit were discussed and this will be issued to users.

8 Cold Stores

This item was added to the agenda at the meeting. GW had written a report for the facilities committee but it was considered useful to raise it at this meeting as the task would involve movement of materials and some disruption in the department.

There are currently 4 cold room areas within the School in the following areas: Drummond Street, Grant Institute, John Murray labs and Crew labs.

Drummond Street comprises of a free standing unit within a room. This unit holds primarily sediment cores and soils samples and is used for short and medium term storage. This unit, due to the internal dimensions, is limited to storing bagged material and short cores only. It is also at capacity with additional samples being stored in the Grant (longer core samples) and what was Archaeology. This storage however is on “temporary loan” from Archaeology and comprises of 2 large free standing units one of which is full with samples.

There is an offer to buy these from Archaeology. However, there is currently nowhere to put these units in Drummond street due to the size (height) plus the costs involved to relocate these would out weight any benefits and would not provide a satisfactory solution to the present and long term needs.

The unit in the Grant Institute was installed in 1991 following the Earth Science review and is a self contained unit and is used for short, medium and long term storage.There is a lot of material that cannot be identified or linked to a member of staff with some samples possibly belonging to U/G student projects. Ownership will need to be clarified before removal. This store is close to storage capacity with room left for small sample only. Spare capacity would only be achieved by rationalising/relocating samples.

It is estimated that in the John Murray labs the unit was installed in the late 60’s early 70’s and is a self contained unit and is used for short, medium and long term storage. The unit due to its age has become unreliable with certain parts now difficult to source. The main refrigeration system was replace just over 10 years ago with a second hand system left over from a refurbishment in the Ashworth building and this now is starting to become problematic. Core and water sample would appear to be the main samples stored. Rationalisation of samples is required.

The Crew labs did not have any cold room facilities and there was no funding available to install a unit so a number of upright fridges and freezers were purchase in an attempt to provide cold room storage on site. This facility received sustainability funds in 2010 to replace some fridge and freezer units. This facility is generally well policed and therefore rationalisation is not an issue.

9 Update on Safety issues in the Crew

MW and HP informed the group of the improvements that were happening in the Crew Labs and the now weekly inspections by academic staff. This has improved conditions and housekeeping significantly and allows safety issues to be picked up on a regular basis and dealt with before they come more dangerous.

AN commented how nice it was now to have cleared out the chemical store in Drummond Street.

10 Urgent need for a lab manager in the Crew Labs

MW raised again the need for a manager in the Crew labs and the group discussed that if the Crew Labs became an SRF they may be able to fund an individual on “soft” money as other areas within the School do or may be able to part share an individual such as Rab Howard. MW asked for a note of what technicians were doing now. GW explained that staff are needed at short notice to help out with installations, fieldwork and he has lost one person in Drummond Street. It was agreed that a long term strategy was needed. DK told the committee that a review of lab usage was underway across the School.

11 Integration of management and use of the Crew Labs with those of the "biochar" labs in terms of User Groups

MW discussed the possibility of working with the biochar team to pool resources and management. DK recommended that he speak directly to the biochar team.

Action: MW to speak to Biochar team directly.

12 Headphone use in the lab

A concern had been raised about the use of headphones in the laboratories. The committee were united in their opinion that the risks from headphones were those of someone not hearing alarms or warnings or being startled by someone entering the room, causing them to drop or spill something they were holding. There was also a concern about the cables becoming entangled when working with equipment. The committee agreed that bench radios were acceptable as they did not pose the same kind of risks.

Action: HP to send School wide email.

13 Heating

Following the return to the department after the Christmas holidays, it seemed to take a day to heat the buildings. GW explained that the heating is put on the day before but due to extreme cold it took longer for the buildings to heat up. The committee suggested that they should have taken this into account and turned it on earlier.

Action: GW to feed back to E&B.

14 Satellite Phones

A concern had been raised about individuals undertaking place in remote areas of the world and the possible purchase of satellite phones. The committee discussed the satellite phones that are personally used in the department and the demands made on them. The committee agreed that purchasing some would be a good idea.

Action: PN to send HP details of his phones.
Action: DK to look at possible funding options.
Action: HP to compare models and look at coverage.

15 Dates for 2011: 8th March, 7th June, 13th September, 6th December

The next meeting was changed to the 7th of March and it was agreed that all meetings would be at 2pm in DK's office.

16 AOB

None