Imperial College London

Health and Safety Matters

December 2015

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New College Driving Policy hits the road

Following an extensive consultation period, a new Driving at Work Policy and Code of Practice was approved at the October meeting of the College Health, Safety and Environment Committee.

Most people will be well aware that the Health and Safety at Work etc. Act 1974 requires employers to take steps to ensure the health and safety of their employees and others who may be affected by their activities when at work. Work-related driving falls within scope as the person behind the wheel is clearly 'at work', though for our purposes this excludes driving from the persons residence to their normal place of work i.e. commuting. In addition, Zurich, the College's insurers identified a gap in College procedures in relation to workplace transport risk assessments and the absence of a 'grey fleet' policy ('grey fleet' being the common term for individuals using their own vehicles for work purposes).

The Driving at Work Policy - supported by a Code of Practice -applies to the use of College vehicles, lease and hire vehicles and private vehicles when used for work purposes (the 'grey fleet'). The College owns or leases a variety of vehicles including tractors and rollers for its sports grounds, transit vans and electric vehicles for departments and support services and minibuses owned by the Student Union. The Policy states our commitment to manage the risks associated with work-related driving and refers to the obvious requirements of compliance with statutory requirements, the Highway Code (or an equivalent when driving abroad) and the need to promote best practice. The detail is provided in the supporting Code of Practice.

In short, the Code of Practice includes information on:

- Responsibilities - including those of the College Insurance Manager, HODs, fleet managers, line managers and drivers.
- Journey planning.
- Health issues impacting on drivers.
- The safety of the vehicle.
- Safety issues during and after the journey.
- Vehicle insurance and driving licenses.

Plus further information on instruction & training, a checklist and risk assessment requirements (including a generic example).

The supporting paper submitted to Health, Safety and Environment Committee also outlined the requirements needed to implement the Policy and Code of Practice. As such, Faculties and departments will be required to:

- Cascade the Driving at Work Policy and Code of Practice and discuss at departmental meetings.
- Ensure that Line Managers are aware of the Policy and CoP particularly with regard to their specific responsibilities as line managers and supervisors.
- Establish a means of occasional monitoring of driver risk assessments.
- Look to reduce the number of vehicle journeys e.g. by encouraging overnight stays.
- Comply with the Dangerous Goods Regulations and encourage the use of specialist couriers for such loads.
- Remind drivers that the use of mobile phones (including hands free) and other hand held devices are not permitted while driving.
- Identify staff who are required to drive as part of their duties and ensure validity of licenses, application of health checks etc.
- Appoint a Fleet Manager in cases where the department owns vehicles located either in the UK or abroad and ensure that the Fleet Manager carries out the duties described in the Code of Practice.

The Policy and Code of Practice will shortly be available on the Safety Department website.

An implementation plan including information and training for relevant staff has been formulated with a target date of 2 April 2016.

Changes to sentencing guidelines for health and safety offences

Perhaps not the cheeriest of subjects for a festive newsletter edition, but important new Sentencing Council guidelines have been established for corporate manslaughter, health and safety and food safety & hygiene offences. The guidelines come into force on 1 February 2016 and will apply to any case heard on or after that date, irrespective of when the offence occurred.

Under these guidelines, fines for health and safety offences will increase significantly and are designed to remedy what is seen as low fines for large companies.

Key points to note

- The guidelines, for the first time, include individuals, not just 'organisations'. For individuals the prospect for a custodial sentence (and not just for the most serious type of offending), is a real possibility. Fines for individuals will significantly increase. This guideline will introduce a new Band F fine for the most serious offences; the starting point will be 600% of relevant weekly income.
- The guidelines will apply to general duty offences (Section 2 and Section 3 Health and Safety at Work etc. Act 1974*) and any offences that contravene any health and safety regulations. Additionally, secondary liability for certain offences, or those committed with consent, connivance of, or neglect will also be covered.

  **Section 2 H&SWA: General duties of employers to their employees. Section 3 H&SWA: General duties of employers and self-employed to persons other than their employees.*

- The fine levels are based on the turnover (not profit) set relative to offence culpability and harm. The narrative suggests that the focus should be on the defendant entity, although there may be occasions when a parent company's position is relevant. Imperial's position regarding spin-offs will need to be considered.
- Providing accounts and detailed explanations of them will become increasingly important, as the court will need to conduct a far more detailed analysis.

A series of matrices of the type that would not be unfamiliar to any safety professional will be used to establish the level of 'culpability' and 'harm' and to cross reference this against the turnover of the organisation. In the opinion of Eversheds solicitors, there will be significant input by both the Prosecution and Defence when determining the correct levels of 'culpability' and 'harm' as the difference between one harm category and another could equate to over £1 million. Consequently, this is likely to result in longer hearings and an increased requirement for expert evidence. Eversheds also conclude that the guidelines are based on the premise that dutyholders will take health and safety more seriously if the penalties are higher.....but organisations that react to the guidelines and bring them to the attention of senior management are likely to be those organisations that already have robust procedures in place. A summary of the implications was included in the Safety Director's report at the October meeting of the College Health, safety and Environment Committee.

An abridged summary of the criteria

Culpability

Very High

Deliberate breach of or flagrant disregard of the law

High

Serious and /or systemic failure within the organisation to address risks to health and safety

Medium

Systems were in place but these were not sufficiently adhered to or implemented

Low

Failings were minor and occurred as an isolated incident

Harm

A matrix that quantifies the likelihood of harm (high, medium or low) measured against the seriousness of harm risked (defined as Level A, B or C, where A is considered the most serious)

The definitive guidelines can be found on The Sentencing Council website:
https://www.sentencingcouncil.org.uk/publications/item/health-and-safety-offences-corporate-manslaughter-and-food-safety-and-hygiene-offences-definitive-guideline/

LEARNING FROM INCIDENTS

Leaning from incidents is an essential element of reactive safety management. As such, we plan to make this subject a regular feature of future editions of Health & Safety Matters as a means of publicising particular cases, and will attempt to focus on those issues that have College-wide implications. In this edition we look at two current topics.....push-capped vials and the disproportionate pricing structure for hazardous gases.

Example 1: Push-capped sample vials

The issue: In the Chemistry Department, a number of injury accidents have been reported in relation to the use of push-capped sample vials. These have either involved cuts to the hands from the broken vial (caused by forcing the cap on) or exposure to the contents of the vial. To reduce the risk of this kind of injury it was suggested that screw capped vials should be used as these do not rely on the user forcing the cap into place. However, reasons to not use the screw capped vials included:

- Awkwardness from narrow (bottle) neck on screw-cap vials impeding access to contents.
- Increased costs of screw cap vials versus push cap vials.

It transpired that discussions with groups involved in these incidents and with the suppliers indicated that the push-capped vials can be replaced with screw-capped without any significant impact on the procedures involved or much difference in cost. The departmental stores were also willing to remove the push-cap vials entirely from their shelves and stock only screw-crew cap vials in future (though it was not possible to prevent acquisition of push-cap vials through outside ordering routes).

In addition, several groups stated that they only used push-cap vials as open disposable tubes (i.e. without caps) so small culture test tubes were sourced and are now in stock as a cheaper alternative for this particular usage. Since these are not supplied with a push-cap lid, the associated risk is eliminated.

Learning outcomes:

1. Analysis of accident trends is a valuable exercise in establishing and addressing things that cause repeated accidents to occur.
2. Close dialogue between end users and local safety staff can enable procedures to be better understood and safer alternative methods to be implemented.
3. Working closely with suppliers can enable safer products to be sourced at competitive prices.
4. Where consumables are purchased via stores based within the College, ‘less safe’ products can be withdrawn from the stock list thus preventing them being acquired via this route.

Example 2: The disproportionate cost of ammonia

The issue: No incident fortunately, but well worth inclusion in this section for the learning outcomes. During a laboratory inspection it was noted that a research group were using a 6.2 bar 29kg cylinder containing ammonia. The gas was used relatively infrequently. The risk assessment identified that a smaller cylinder would suffice and therefore less gas could be stored in the lab. However the cost of a 6kg cylinder was approximately £474.54 compared to £86.72 for 29kg. This pricing imbalance had led to larger cylinders of hazardous gas being purchased as it was cost effective for the research group. The inherent risk was therefore increased due to the larger volume of gas present.

The Faculty Safety Team raised this issue with the College Safety Deptartment and Purchasing who negotiated a more favourable cost for the 6kg ammonia cylinder to £80.62. A review of the pricing structure for a number of other hazardous gases is also under way.

Learning outcomes:

1. It cannot be taken for granted that smaller quantities of material will have a proportionally lower cost - buying in ‘bulk’ is often less expensive.
2. Understandably, vastly inflated costs will drive the end user to seek the cheaper option and this exerts considerable pressure to outweigh safety concerns.
3. Suppliers can be persuaded to review their pricing structures if a genuine concern is raised. This is particularly so where there are safety implications. It also helps when there are specific provisions in Regulations that can be quoted - in this case, the requirement under Regulation 7 of COSHH to minimise the quantity of substances hazardous to health present in the workplace.
4. The Purchasing Department cannot be expected to be able to easily identify hazardous products from non-hazardous ones. They therefore require a ‘heads-up’ from end users if it is felt that there is a price discrepancy relating to purchasing different quantities of hazardous products.
5. Likewise, Faculty safety staff and the central Safety Department are not normally directly involved in the purchasing process. We therefore also rely heavily on end users raising concerns of this nature.

*Acknowledgement to the Faculty of Natural Sciences H&S Team for investigating these issues and sharing the outcomes

News Snippets

Provost's Awards for Excellence in Health and Safety

The nominations for the 2016 Provost's Awards for Excellence in Health and Safety are now open. Two awards will be made; one at an individual and the other at a team level. The timetable is as follows:

16 November 2015	Nominations open
31 January 2016	Nominations closed
1-5 February 2015	Applications reviewed and submitted to the Academic Champions
10 February 2015	Agenda / papers circulated for the Academic Champions meeting
w/c 22 February 2016	Awards decision

The nomination form and tips on nominations can be downloaded from the Safety Department website:
http://www3.imperial.ac.uk/safety/policies/rectorsaward

Safety Department Web Pages

By the time that this edition of Health & Safety Matters is published, it is likely that the new Safety Department web pages will have been launched. This is part of the wider College Web Redesign project and many people will already be familiar with the look and feel of the new pages from the other College pages that have previously been transferred over.

The new safety pages retain some of the features of the old pages but there has been more emphasis on being able to quickly locate information by subject heading. We have also endeavoured to make it clearer as to who to contact for help and advice in relation to the nature of the query. The biosafety and radiation safety pages in particular have undergone a major overhaul. If you had links to the old Safety Department site from your local departmental pages, you should check that these links have not been broken or the target pages have moved elsewhere or been re-written.

Safety Audits and Inspections

The new programme for Audits & Inspections has been launched. Previously College audits were full audits, lasting longer than one week as in effect they were all "new HOD" audits. As the College Safety Management System is maturing, planned audits will now be shorter, more frequent, and focussed on areas of higher concern.

The intention is that each department (academic and support services which are not solely office-based), is visited every two years. In the first year of the new programme there will also be an additional six-monthly follow-up, regardless of the departmental risk profile.

In addition, unannounced inspections will also take place throughout the year and will be independent of the planned schedule. More detailed and thorough audits will be undertaken in any areas where the initial audits/inspections identify serious safety failings.

Off Site Working

New Overseas Travel Working Group has been established to further develop and stream-line the processes in light of recent incidents & experiences. The first meeting was held on 9 September 2015.

Regulator Visits

It has been a particularly busy autumn in relation to the variety of regulator visits that the College has received. We have hosted visits from the HSE (looking at some of our CL3 facilities), the Animal and Plant Health Agency (looking at some of our work licensed under the Plant Health Order) and our Counter-Terrorism Security Adviser. We even hosted a visit from the Land Transport Security Division of the Department for Transport who were interested in security procedures for High Consequence Dangerous Goods. No major deficiencies were identified in any of the inspections - minor issues are currently in the process of being addressed.

Water, water everywhere

In the June 2014 edition of Health & Safety Matters, we published a piece on legionella and water system safety....this article examines some further developments

It is well recognised that holding water for an extended period of time at temperatures that fall within the recognised temperature range for Legionella (20-45ºC) and where water can be released as respirable droplets (aerosols), there is a risk of exposure to the bacteria. Inhalation of water droplets contaminated by Legionella can result in illness, including contracting Legionnaires' disease which can be fatal. The HSE publications: Approved Code of Practice (L8) *The control of legionella bacteria in water systems* supported by technical guidance HSG254 is the chief reference document for Legionella management. Both are available as free downloads from the HSE website.

Water systems at the College can be broadly divided into two areas:

- Those systems that fall under the remit of Estates i.e. water systems and infrastructure that supply water or comfort cooling across the estate.
- Those that are under the control of departments who use the supplied water.

Established and documented procedures are in place for the management of water systems within Estates remit, however, no formal central survey is known to have taken place to determine the adequacy of procedures for managing departmental systems. If inadequately managed, the process of attaching specialist equipment to the water supply system can have a detrimental effect on Legionella risk control as can the infrequent use of water outlets.

In August, the Safety Department employed a consultant to undertake a study of departmental water systems and produce a report outlining the current state of affairs. The consultant selected was an ex-inspector with the HSE and a water safety specialist who has been known to the Safety Department for many years. It was clearly not possible to visit and assess every item of specialist equipment utilising water across the entire College. However, a representative selection was chosen that covered a variety of equipment in a number of different buildings at South Kensington campus. The areas under consideration included items such as water jet cutters, humidifier rooms, flumes and tanks, cage washers and autoclaves.

In summary, it was concluded that, certainly with regard to most of the equipment seen during the visit, equipment was being operated in a way that ensures that legionella risks are low. However, there was evidence that control schemes have sometimes been formulated with a view to achieving experimental integrity rather than as a result of a formal assessment of the risk of exposure to Legionella.

Arguably, of greater concern was the more simplistic issue of the management of water outlets in occupied areas, particularly in relation to their frequency of use. Where rooms are not in use or where particular outlets are not frequently flushed, there is a risk that water may stagnate within the local proximity and Legionella may proliferate to hazardous levels. In such situations, Legionella may be released from the outlet in harmful aerosols upon subsequent re-use of the outlet. In addition, motile bacteria including Legionella could potentially infect other parts of the water system by 'back seeding'. In such cases, there is certainly the potential for impact on the building water supply. It was clear that more needs to be done to ensure that infrequently used outlets are identified and appropriate control measures implemented.

A draft report has now been produced and decisions need to be made regarding how to proceed to address the findings. Consideration is being given to a Water Safety Code of Practice, though in the shorter term, it may be more practical to gain a 'quicker win' by producing some basic guidance that could be disseminated to departments.

Approved Code of Practice (L8) *The control of legionella bacteria in water systems:* http://www.hse.gov.uk/pubns/books/l8.htm

Legionnaires' Disease Technical Guidance: http://www.hse.gov.uk/pUbns/books/hsg274.htm

Occupational Health Service ~ Autumn Update ~

Wellbeing

A cross department Staff Wellbeing Web page is to be launched in early 2016. This will bring together all the wellbeing focused activity under the a single banner. The key partners are Occupational Health, the Educational Development Unit, the Learning and Development Centre and Sport Imperial.

Some recent wellbeing initiatives are summarised below:

- As part of the Stoptober initiative, *Quit* were in attendance at South Kensington on the 9th of October. This gave people the opportunity to enquire about the benefits and support available to give up smoking.
- Sport Imperial held an ALTitude health promotion event at Ethos in October, raising awareness of all the opportunities to engage in physical activity.
- Mindfulness and meditation sessions continue in the Chaplaincy and SALC. Sessions are being streamed via *Panopto* with groups in Hammersmith and St. Mary's having established satellite sessions.
- Stress Awareness Day took place on 4th November. Events to help improve personal resilience were very well attended, with the purpose of supporting Line Managers in managing stress in their teams. People have particularly been encouraged to 'reclaim their lunch break'.

Computer Health

The Computer Health Policy & Guidance documents have recently been revised and approved. In areas where there is intensive use of computers we have recommended a minimum of one assessor per 100 users - where there is less intensive use, one per 200 users. Other assessor duties include first line user training and assessment, maintaining records of local inspections and troubleshooting. Departments will be invited to send DSE Assessors for training and dates will be published in 2016.

FREQUENTLY ASKED QUESTION

FAQ

Can I transport hazardous materials in a College vehicle or in my own car?

The first step is to determine whether the hazardous material in question falls within the scope of the Dangerous Goods Regulations i.e. whether it meets the criteria for one of the nine classes of dangerous goods defined in the regulations below.

The transport of dangerous goods by road in the UK is covered by the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 and the detail is contained within ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road). This comprises a 1200 page manual. You are probably getting the message that this is a complex subject.

For small quantities of dangerous goods, some derogations exist. Some types of dangerous goods can be transported in Excepted Quantities or Limited Quantities. For these types of consignment, there are no particular vehicle or driver requirements. There is another category known as the 'small load exemption', however, we are now getting into the realm of specific requirements for driver training, secure stowage and carrying fire extinguishers. For fully regulated ADR loads, it is not possible to use College or private vehicles since such consignments require ADR certificated drivers and vehicles need to be appropriately marked and equipped. Another complicating factor is that certain higher risk substances are termed High Consequence Dangerous Goods (HCDG). These are substances that could be misused in a terrorist incident and to carry them introduces an additional raft of transport security measures.

The College does not operate any vehicles for the purpose of transporting dangerous goods. In some cases, the above derogations could possibly be applied, however, the general principle is to encourage the use of approved couriers (such as CitySprint or World Courier). Certainly, for some types of consignment, this is an absolute requirement. For further information, contact your local safety person or the Safety Department.

Safety Training

The Learning and Development Centre reported to Health and Safety Consultative Committee on 7 October 2015 that during 2014-15 approximately 3366 delegates accessed the LDC programme. This includes staff, postgraduates, contractor partners and external organisations. This does not take into account departments who have accessed local training directly.

The Introduction to Laser Safety (e-learning) is now well established, there were 401 completed test results. The LDC is working towards automatically notifying Departmental Laser Safety Officers (DLSO) with test results and direct access to Qualtrics for reporting. LDC is promoting the 5-day Public Health England (PHE) Laser Safety Management course at Loughborough to assist faculties in the management of their activities and provide reassurance to the College.

Both e-learning RAFT and MOST has now successfully moved from ICIS and can now be accessed directly from the safety training website. This means that anyone needing to take either course (staff or non-staff) can access it from one place, without the need to log-in to other systems. The reporting tool Qualtrics allows efficient and effective search functions and permits data to be exported via a spreadsheet.

LDC is piloting e-learning with NEBOSH National General Certificate (NGC) with an external provider, RRC, who are in a better position to update the content and support materials particularly in relation to syllabus changes. By working with a partner organisation there is further advantage to accessing a wider portfolio of courses and streaming candidates to the correct learning path - Fire Certificate, Construction Certificate or Environment Certificate etc. The College remains an exam centre providing opportunities for past candidates to re-sit exams in 2015, but, if the pilot is successful then LDC will consider withdrawing its accreditation. The Safety Training Advisory Committee (STAC) endorsed this approach on 17 November 2015.

Short summary of courses 2014 - 2015

Course Title	Sessions	Delegates
DSE Assessors	2	23
Ensuring Laser Safety	3	28
Manual Handling and Lifting	10	105
Manual Handling Assessors	2	10
Paediatric First Aid	3	36

Contact Details

Occupational Health Service
Level 4
Sherfield Building
South Kensington
London SW7 2AZ

Telephone:
020 7594 9401
E-mail:
occhealth@imperial.ac.uk
Website:
www3.imperial.ac.uk/occhealth

Safety Department
Level 4
Sherfield Building
South Kensington
London SW7 2AZ

Telephone:
020 7594 9423
E-mail:
safetydept@imperial.ac.uk
Website:
www3.imperial.ac.uk/safety

If you have any comments or suggestions for inclusion in the Newsletter, please contact the editor:

John Luke
Safety Department
j.luke@imperial.ac.uk