**Position Statement – University Hazards**

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| **HAZARD** | **LOCATION** | | | **LEAD CONTACT** | | | **PERSONNEL (INDIVIDUAL NAMES OR GROUPS OF STAFF) WHO HAVE ACCESS TO THIS HAZARD** | | | **OTHER COMMENTS** | | | **Relative RISKS**  Low  Controlled but  action needed  Serious | |
| **Ionising Radiation**  **1. Open Sources**  (i.e.those sources that can be manipulated and divided into aliquots or sub stocks – e.g. liquids in vials, powders, or gases such as tritium) | Graham Oldham Building is the ONLY building on campus where open source work is permitted. Departments who need to carry out work with open sources are given space in the lab | | | Professor David Read | | | Chemistry provides a list of named individuals from their department who are given access to HG19 – a supervised area  Out of hour’s access to HG 25(an area which is designated as a controlled area) is limited to 3 senior members of staff who can obtain a key. | | | The security of the radiochemistry labs is an issue as FM, IT and Security staff have been able to swipe themselves into the supervised area both during work time and out of hours. FM staff can also get into HG14 using a key. The concern is that any accidental release of radiation can be spread beyond the confines of Radio Chemistry by people who do not appreciate the risks to themselves or others including family members and the wider community.  ACTION: instruction to FM to change access to be monitored for ongoing compliance. **Swipecard access removed 13/5/10**  The isotopes that have the highest potential to cause harm to an individual are those which emit alpha radiation as these have the potential to be ingested and then damage the body from within. The University holds a licence to have up to 10 MBq of alpha emitting isotopes on site - which is very low. We currently use 6.5 Mbq of this allocation. The University may seek to increase this holding in the short to medium term depending on research being undertaken. | | | Health  Adverse Publicity  Law | |
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| **2. Sealed Sources**  (nb those sources that are not sub divided for use but are typically solid materials embedded into a matrix or contained in a fixed housing e.g. calibration standards or sources in machinery | | | The only significant source is kept in Ann Packer | | Professor Helen Rendell | | | Only two members of staff have a key to the controlled area. There is no spare key in the key office and Security do not have access | | | Four sources of Strontium 90 are housed in this area. The combined activity is 4.8Gbq. The health risk associated with these active sources is mitigated by the containment and physical form of the material. The sources are solids contained inside a steel chamber. It is therefore difficult to cause contamination either deliberately or accidentally. Security was reviewed by Leicestershire Police in 2010. | | | Health  Adverse Publicity  Law |
| **Lasers – group 3B and 4 lasers**  (Classes 3B and 4 lasers will cause injury if directed into the eye. A class 4 laser will cause tissue damage to skin) | | | Inventory of class 3B and 4 lasers updated Feb 2011 | | University Laser Safety Advisor | | | Local procedures are in place to authorise use of 3B and 4 lasers. | | | A university code of practice supports the University Laser Policy.  Audit of lasers is overdue  Action: Audit compliance with University COP | | | Health  Adverse  Publicity  Law |
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| **X ray machinery** | | | Human Sciences  Physics  Wolfson  Chemistry  Materials | | Katherine Brooks-Wavell  Bryan Dennis  Bob Temple  Mark Elsegood  Scott Doak | | | Registered radiation workers are named and badges are issued by the HS and E office | | | The items are safe in isolation from electrical power.  Operatives are trained to use the equipment and no-one other than the lead contact would be able to access the components that produce the X rays  In use all xray equipment is so far as possible made safe by interlocks, guards and containment. | | |  |
| **Biological Material** | | | Unscreened blood, urine, faeces saliva & sweat are in hazard gp 2 Departments holding biological material include Chemistry, SSHES, Civil engineering, Wolfson and Chemical Engineering | | Catherine Moore | | | A containment level 2 facility needs the biological hazard area to be signed at the entrance with the pictographic sign:  http://upload.wikimedia.org/wikipedia/commons/thumb/c/c0/Biohazard_symbol.svg/200px-Biohazard_symbol.svg.png  Local control prevents unauthorised access – a lockable door or swipe card system is the standard required by the biological audit. | | | Biological material is categorised into hazard groups1- 4 with group 4 having the highest risk. University policy limits the hazard group to level 2 | | | Health  Publicity  Law |
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| **Genetically Modified Organisms** | | | Holywell Park:  Centre for Biological Engineering | | Professors Chris Hewitt and David Williams | | | Research staff - permission for access is granted following completion of training and risk assessments | | | A HSE inspection was carried out in April 2010. Arrangements were found to be suitable and sufficient. A minor recommendation was made to improve the risk assessment form which has been done | | | Health  Publicity  Law |
| **Nano materials** | | | Not currently monitored | | **N/K** | | | **N/K** | | | Nano materials are a relatively newly recognised health risk and as yet there is no specific legal requirement, over and above the regulations concerning hazardous substances in general, which covers their use. There is concern that the materials may behave in a similar fashion to asbestos fibres and the HSE is consulting with universities about their use of nano materials. It is possible that in the future there will be sector guidance in this field.  A questionnaire has been circulated to departments to gather information about the use of nano material at Loughborough.  Action Review the feedback from departments concerning use of nano material at Loughborough. | | | **Health**  **Publicity**  **Law** |
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| **Chemical weapons**  **Drugs precursors**  **Highly toxic chemicals** | | No material on the Chemical Weapon Convention Schedule had been imported, manufactured processed or consumed in the current reporting period.  Materials featured on the Drugs Precursor licence were ordered by Chemical Engineering and Chemistry in 2010  University wide – COSHH assessments cover all work with hazardous substances | | | | Catherine Moore  Heads of Departments | | | N/A  As standard lab reagents these materials feature in undergraduate labs but the quantities ordered are monitored by the university safety office.  It is not possible to currently list where highly toxic materials are used across campus or to categorise those who have access to this material | | | The university has a small amount of one material (arsenic trichloride) which features in one of the schedules to the CWC declaration but is not reportable to the Dept Environment and Climate Control (DECC) as it is in storage – Pauline King is the person who has responsibility for this material.  Highly toxic chemicals are defined as those with an LD50 for oral, skin or inhaled doses at specified levels. The university does not prescribe how these materials should be stored and this is to be investigated as part of the University COSHH audit May 2011.  Action: Review control and policy in May 2011 with KPMG | | Health  Publicity  Law  Health  Publicity  Law  Health  Publicity  Law |
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| **Nuclear Material – i.e. Uranium, Thorium and Plutonium salts (including geological specimens** | | A statutory return is made to HSE nuclear safeguards division on University holdings of this material.  We have some material in  Chemistry, Physics, Education and Library (!) | | | | Julie Turner | | | All material is audited as part of the statutory returns that are made to the Nuclear Safeguards Division. | | | The regulatory requirements are in the process of being checked by HSE to determine the level of compliance required at Loughborough University. As a low risk organisation the reporting level falls to annual returns rather than monthly. The derogation which would categorise us as low risk is expected imminently.  The library has some historic samples of Uranium ore in its archives – given by a Chemical engineering professor | | Health  Publicity  Law |
| **Explosive Material** | | Wolfson School  Chemistry | | | | Prof J Tyrer | | | TBC  Specified in COSHH assessments | | | Professor Tyrer has a licence to have explosive material in his possession. This licence is not maintained by the University as it pertains to the activities of a privately owned company based on campus.  Not specifically controlled – small amounts synthesised. To be discussed at next Chemistry safety committee | | Health  Publicity  Law |
| **Other hazardous items** | | TBC | | | | TBC | | | TBC | | | This document has been circulated to all heads of Department for their input concerning other materials/substances/equipment that are not currently identified in this position statement. An update will be given to HSE committee | | TBC |