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| UMEÅ UNIVERSITY  Work environment committee | Resultado de imagen para umeå universitet | Rev. 29-01-2014 |

**Checklist, fire safety patrols – part of the university's   
systematic fire safety work and self-inspection**

***Fire safety patrols*** *are carried out at least once a year using the checklist below and the fire safety plan for the building. A copy of the checklist is sent to Umeå University's fire safety coordinator at the Building Office. Any "yes" answers given identify shortcomings which require action. Actions are implemented by own operations or through claims against the property owner. The fire safety plan indicates boundaries between property owners and tenants. Long-term actions will be transferred to a separate action plan (annex 2).*

***The fire safety plan*** *must be used as a basis for the fire safety patrol. (If there is no fire safety plan, contact the fire safety coordinator.) Check that the fire safety plan is correct in terms of the position of gas cylinders, chemicals, radioactive substances and equipment worthy of protection, for example. Non-conformances will be noted and reported to the building officer at Akademiska Hus, and copies will be sent to the fire safety coordinator at the Building Office.*

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| Building: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Floor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| Dept./equiv.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_Previous inspection:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| Signature of head of department/equiv.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Signature of fire safety representative:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| Have the shortcomings from the previous fire safety patrol been rectified? | | Yes | No |

**Check points:**

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| **EVACUATION** | **No** | **Yes** | **No. + problem if Yes** | | **Action/sign.** |
| 1. Doors and windows used for evacuation locked, difficult to open, blocked by snow, etc.? |  |  |  | |  |
| 2. Are corridors and evacuation routes blocked? |  |  |  | |  |
| 3. Are evacuation signs missing from the evacuation routes? |  |  |  | |  |
| 4. Is the lighting missing from luminous signs? |  |  |  | |  |
| 5. Is the light source for evacuation signs out of action? |  |  |  | |  |
| 5b. Are there are any errors in the evacuation plans (the notices pinned up on the walls)? |  |  |  | |  |
| **FIRE EXTINGUISHING EQUIPMENT** | **No** | **Yes** | **No. + problem if Yes** | | **Action/sign.** |
| 6. Is fire extinguishing equipment missing(indoor hydrants, handheld fire extinguishers)? |  |  |  | |  |
| 7. Are signs beside extinguishing equipment missing? |  |  |  | |  |
| 8. Is the extinguishing equipment blocked or difficult to locate? |  |  |  | |  |
| 9. Is the extinguishing equipment damaged or out of action? |  |  |  | |  |
| **PREVENT THE SPREAD OF FIRE AND SMOKE** | **No** | **Yes** | **No. + problem if Yes** | | **Action/sign.** |
| 10. Do door closers for door sections separating fire compartments work poorly? |  |  |  | |  |
| 11. Do door closing devices on doors propped open work poorly? |  |  |  | |  |
| 12. Are there any wedges or other items used to prop open the door/doors? |  |  |  | |  |
| 13. Are doors to areas such as the basement, distribution box, fan room, heating plant, waste disposal room, laundry room and storeroom open/propped open? |  |  |  | |  |
| 14. Are there any visible, open holes in fire compartment boundaries (at cable leadthroughs, ducts, etc.)? |  |  |  | |  |
| **FIRE PREVENTION** | **No** | **Yes** | **No. + problem if Yes** | | **Action/sign.** |
| 15. Are flammable materials stored in corridors and stairwells (evacuation routes)? |  |  |  | |  |
| 16. Are there signs indicating attempts to start a fire? |  |  |  | |  |
| 17. Are there any cables, plugs or electrical devices which look worn or damaged? |  |  |  |  | |
| 18. Are any fluorescent tubes flashing or broken? |  |  |  |  | |
| 19. Are there any unprotected fluorescent tubes or poorly secured light fittings close to flammable materials or in dusty environments? |  |  |  |  | |
| 20. Are outdoor containers and plastic bins for waste storage or other flammable materials positioned next to walls or on loading platforms? |  |  |  |  | |
| **TRAINING AND PROCEDURES** | **No** | **Yes** | **No. + problem if Yes** | **Action/sign.** | |
| 21. Are there any staff who have not received fire safety training? |  |  |  |  | |
| 22. Have any new staff been taken on who have not received training? |  |  |  |  | |
| 23. Have there been any fire-related incidents which have not been followed up with staff? |  |  |  |  | |
| 24. Have any new risks come about which require training? |  |  |  |  | |
| 25. Is there no prepared procedure for evacuation with which everyone in the workplace is familiar? |  |  |  |  | |
| 26. Are there no procedures for information to new staff concerning the evacuation plan? |  |  |  |  | |
| 27. Are there no procedures for information to students concerning the evacuation plan? |  |  |  |  | |
| **FLAMMABLE PRODUCTS** (gas, chemicals, etc.) | **No** | **Yes** | **No. + problem if Yes** | **Action/sign.** | |
| **Not applicable on these premises** |  |  |  |  | |
| 28. Are gas cylinders containing flammable gas stored outside designated fire-rated areas ("gas rooms/stores" or gas cupboards)? (May be used in a lab, for example, where applicable, but must be stored in a fire-rated area at other times.) If Yes, specify the gas, room number, quantity and volume in the Notes field below.) |  |  |  |  | |
| 29. Is there no fall protection for gas cylinders left out temporarily or in gas rooms? |  |  |  |  | |
| 30. Are gas cylinders containing non-flammable gas stored openly on the work premises? (Stored in fire-rated rooms or cupboards.) |  |  |  |  | |
| 30. Are there no warning signs next to premises where gas is stored or handled? |  |  |  |  | |
| 31. Are flammable chemicals stored outside fire-limiting, ventilated areas, e.g. chemical rooms or chemical cupboards? |  |  |  |  | |
| 32. Is there no trained flammable materials manager? (The name of the manager is stated in the Notes field below.) |  |  |  |  | |
| 33. Are there no handling instructions? |  |  |  |  | |
| 34. Is there any unprotected electrical equipment within an explosion-rated area (see classification plan)? |  |  |  |  | |
| **HOT WORK** (Welding, brazing, etc.) | **No** | **Yes** | **No. + problem if Yes** | **Action/sign.** | |
| **Not applicable on these premises** |  |  |  |  | |
| 35. Are there no protective gloves next to welding equipment? |  |  |  |  | |
| 36. Is there no backflash protection (when acetylene and oxygen are used)? |  |  |  |  | |
| 37. Are there no non-return valves at welding handles? |  |  |  |  | |
| 38. Is there a risk of welding spatter or other effects of heat (e.g. from brazing or gas burners) igniting flammable material near to the work area? |  |  |  |  | |
| Other:  Flammable products manager: | | | | | |

**Annex 1. Comments on the checklist**

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| **Check point** | **Comments**  **In the column for action, note the designated person responsible within the department or unit who is responsible for contact with the person who is to undertake action.** | |
| 1. | Doors must be checked on both the inside and outside, and opening the door must be tested if it is not normally used for entry and exit. Doors for evacuation must not be locked with keys, codes, cards or similar. If emergency opening buttons are used on doors with electric strike plates, the opening function must be checked.  The property owner is normally responsible for the function of outer doors, locks and windows, but problems may also be down to staff | |
| 3-5. | Evacuation routes must be provided with signs for evacuation. If it is difficult to find evacuation routes, supplementary reference signage may be required. Windows for evacuation must have signs indicating that they are for this purpose, unless all windows on the premises can be opened. Luminous signs must be positioned so that they receive sufficient energy for charging from the general lighting. Translucent sign fittings with battery backup, as required in areas where people assemble, must have functioning fluorescent tubes and the backup function must be tested regularly.  Example of evacuation signage in accordance with AFS 2008:13  The property owner is responsible for emergency evacuation signage. Faults must be reported to the property owner | |
| 6. | Indoor hydrants with centre hose reels to cover the designated premises are the recommended fire extinguishing tools. Handheld fire extinguishers, ideally 6 kg carbon dioxide extinguishers or 9-litre foam extinguishers, can be used as an alternative. Carbon dioxide extinguishers containing at least 5 kg of extinguishing agent should be provided as a supplement in technical areas containing control and regulation equipment. The hoses from indoor hydrants must be capable of covering the designated premises. It is generally possible to count the length of the hose (normally 25-30 m) plus a 3-5 m throwing distance for the water. Handheld fire extinguishers should be positioned so that the nearest extinguishing tools are no more than 25 m away. Remember that the hose may need to be pulled around shelving, etc.  Handheld fire extinguishers with associated signage are generally the property of the department or unit. The fire safety coordinator is contacted for any orders and action. Equipment is serviced regularly every two years, and these services are ordered by the fire safety coordinator.  Indoor hydrants with associated signage are the property of the property owner, so any faults are reported accordingly. | |
| 7. | Apart from the fact that this sign indicates where the extinguishing equipment can be found, it also indicates if the extinguishing agreement is missing!  Sign for indoor hydrants  and handheld fire extinguishers in accordance with AFS 2008:13.  Missing handheld fire extinguishers must normally be replaced. Orders are placed via the fire safety coordinator | |
| 9. | A simple check of the indoor hydrant quite simply involves flushing with water and making sure that the main stopcock and nozzle are working. Handheld fire extinguishers must be reviewed to ensure that hoses, handles, etc. are undamaged and the pin seal is unbroken. The extinguisher must be wall mounted and easy to remove from its mount. A more thorough inspection, extinguisher service, should be carried out by a service agent at regular intervals in accordance with the local control plan.  The indoor hydrant is also checked by the property owner. | |
| 10. | Check that the door close is functional and capable of closing the door entirely.  All fire doors must close automatically. The property owner is responsible for their function. | |
| 11. | Doors propped open at fire compartment boundaries must be provided with devices which close the doors in the event of a fire. There is often a test button for closing next to the door section. | |
| 12. | Doors in fire compartment boundaries must not be propped open using wedges, hooks, ties or similar.  Fire doors must not be propped open with wedges or similar. Automatic magnetic door closers can be ordered, but these are normally paid for by the department or unit. Cost approx. SEK 10,000. | |
| 13. | Technical areas are premises which must normally have closed or locked doors. | |
| 14. | Fire compartment boundaries must not have open lead-throughs; these must be sealed for fire safety using a type-approved method equivalent to the fire separating requirement for the wall.  It is important to bear this in mind when laying computer cables or similar. The person carrying out the work must check where the fire compartment boundaries are located. | |
| 15. | Stairwells and corridors for evacuation have particularly stringent fire safety requirements in respect of the surface layer on ceilings, walls and floors, and no flammable materials are to be stored on these premises.  If flammable materials such as paper recycling containers, furniture or photocopiers are positioned in evacuation routes, this must be rectified by Umeå University. Contact the Service Office or head of department and manager, depending on who is responsible for positioning the item there. | |
| 16. | | Science may be served on walls above wastebaskets, under stairs or in toilets, burns on noticeboards, etc. An external inspection should also take place to ensure that no flammable materials are stored in a manner which would invite easy setting of a fire.  All fire-related incidents must be reported to the fire safety coordinator. |
| 17. | | Damaged electrical equipment must be replaced immediately or repaired by a professional electrician.  The department is usually responsible for this. |
| 18-19. | | Flashing fluorescent tubes may lead to overheating of the light fitting, so such tubes should be replaced or removed as soon as possible. Overheating of fluorescent tubes is a fairly common cause of fire in storage buildings. Light fittings should ideally be positioned so that they are not above bookshelves, but above walkways if possible. If fluorescent tubes are placed above flammable materials or in dusty environments, the fittings should have protective covers. |
| 21-22 | | The head of department or manager is responsible for ensuring that staff are trained. Lists are sent to heads of department and managers from fire safety coordinators indicating who has taken part. |
| 25 | | Umeå University has a general action plan. The departments and units must think ahead on the basis of this plan and the fire safety training provided to staff so that there is a high level of preparedness. |
| 26-27 | | The head of department and manager are responsible for providing information to staff and students on how to evacuate the work premises. Existing evacuation plans posted up on each floor provide a basis for information on the two nearest evacuation routes.  If the evacuation plans need to be revised, this is reported to the fire safety coordinator. Old evacuation plans produced before 1999 must be removed. |
| 28 (30) | | The university's safety level for handling gas includes the following elements:  1. Distribution of gases which are used regularly, takes place at outlet points via central pipe systems.  2. Monitoring systems installed: This records gas consumption and insures that levels of flammable gases such as hydrogen and LPG do not exceed the maximum permitted instantaneous flows. Safety systems which shut off the gas supply if these volumes are exceeded.  3. A safe system for restarting after an outage must be present. A sectioned distribution system with key switches at the laboratories.  Handling of gas cylinders should be avoided as far as possible. Local distribution systems may be used for certain special gases. Handling gas cylinders requires storage or a separate area in the lab. E.g. flammable gas such as LPG (<250 l) must be stored in a class El 30 fire resistant, separate cabinet vented to the open air when not in use. The cabinet and doors to the premises in which the cabinet is located must be provided with warning signs indicating the presence of gas cylinders.  The fire safety patrol is carried out in cooperation with the manager for flammable product handling who must be appointed at each department and who is responsible for safety. |
| 29 | | Gas cylinders must be protected against falling by means of an arrangement which can easily be disconnected if the cylinders have to be moved out of the way in the event of a fire. Padlocks which need to be opened with keys, for example, are not permitted. |
| 30. | | Doors to these must be provided with warning signs so as to notify emergency services staff and people nearby that flammable products are handled on the premises.  Warning signage for gas cylinders and flammable products.  If the evacuation plans need to be revised, this is reported to the fire safety coordinator. Old evacuation plans produced before 1999 must be removed. |

**Annex 2. Action plan for fire safety measures**

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| Fire safety patrol completed, date  Department/equiv.  Signed by /head of department/equiv. | | | | | |
| **Item/Non-conformance** | **Action** | **Responsible** | **Resource** | **When must it be rectified?** | **Rectified?** |
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