**Date:** 02/27/2007

Title: AD, Sources Group, GTL/CTL/LDL

**Location:** Bldg. 006, Rooms 101, 102, 103, 105, 107, 109, 110, 111, High Bay (100)

## Instructions:

An Area Hazard Analysis (AHA) is a process that is used to evaluate a work area to 1) determine the hazards that may be present 2) determine appropriate controls for these hazards and 3) provide a mechanism to communicate these hazards to someone entering the area. The AHA covers the facility and equipment within the facility. It does not cover specific jobs/tasks that may be performed in the area. Job/task specific hazards and controls are covered by the JHAM process.

The AHA should be done by the area manager, in cooperation with the Building Manager. An AHA should be done once for all working areas and whenever there is a change in to the facility or regulations or the introduction of new equipment or new hazard.

Complete instructions and supporting information is available at https://www-internal.slac.stanford.edu/esh/SLACsafety/jham/aha\_instruction.htm. Enter information into boxes which will expand to accommodate whatever length of text is entered. Once this AHA is complete, the area responsible person signs

| Processes / Equipment in Area  | Hazards   | Recommended Controls & Actions   |  |
|--|---|--|--|
| BUILDING 006 (ALL AREA'S)  Water  HV electrical panels  Chemicals  Compressed gases  Cryogenics  Ladders  Computers  Overhead cranes  Storage cabinets | <ul> <li>Slip hazards</li> <li>Shock Hazards</li> <li>Burns (chemical, cryogenics)</li> <li>Eye &amp; skin damage</li> <li>Falls</li> <li>Asphyxiation</li> <li>Swinging &amp; falling objects</li> <li>Blockage of egress</li> </ul> | <ul> <li>Read building AHA</li> <li>Complete the relevant ES&amp;H training</li> <li>Follow all safety guidelines</li> <li>Properly stored gas cylinders</li> <li>Read MSDS's before using chemicals</li> <li>Earthquake cabinets</li> </ul> |  |
| GENERAL WORKROOM (101)  • Machine tools (drill press, band saw, grinder)   | <ul><li>Cuts, lacerations, abrasions</li><li>Eye injuries</li></ul>   | <ul> <li>Machine tools to be used by qualified personnel only</li> <li>Safety glasses required</li> <li>Safety guards required on all machines</li> </ul>  |  |
| OFFICE (102)  • Refrigerator  • Microwave  | Fire by overloading of electrical circuits  | <ul> <li>Only use power strips per recommended codes</li> <li>Keep floor clear of trip hazards</li> </ul>  |  |

| <ul><li>Lamps</li><li>General office equipment</li></ul>   | Trip hazards  | Secure office equipment that could block egress   |
|--|---|---|
| STOREROOM / OFFICE (103)  • Ion pumps  | Shock hazards   | Cover all electrical hazards  |
| TEST LAB (105)  • Test equipment (oscilloscope, meters, test instrumentation)  | <ul> <li>Shock hazards</li> <li>Trip hazards</li> <li>Fire by overloading of electrical circuits</li> </ul>                     | <ul> <li>Keep floor free of power cords and cables</li> <li>Do not remove equipment service panels with power on</li> <li>Do not overload circuits</li> <li>Familiarize one's self with test equipment before use</li> <li>Do not overload work surfaces</li> </ul>   |
| <ul> <li>LASER DEVELOPMENT LAB (107)</li> <li>Lasers (3B, 4)</li> <li>Power supplies</li> <li>Electronic cabinets</li> <li>Chillers</li> </ul>                                       | <ul> <li>Shock hazards</li> <li>Eye &amp; skin injury (laser light)</li> <li>Trip hazards</li> </ul>                            | <ul> <li>Cover all electrical hazards</li> <li>Only approved Laser Operators may be present when lasers are operating</li> <li>Wear appropriate PPE when operating lasers</li> <li>Keep floor clear of trip hazards</li> <li>Secure overhead equipment</li> </ul>   |
| <ul> <li>GUN TEST LAB (109)</li> <li>Polarized Electron Gun</li> <li>Vacuum system</li> <li>Electronic cabinets</li> <li>Power supplies/Ion pumps</li> <li>Lasers (3B, 4)</li> </ul> | <ul> <li>Radiation (Xrays)</li> <li>Shock hazards</li> <li>Eye &amp; skin injury (laser light)</li> <li>Trip hazards</li> </ul> | <ul> <li>Cover all electrical hazards</li> <li>Only approved Laser Operators may be present when in laser bypass mode (Laser gun bench can be open)</li> <li>The gun may be operated only by approved Gun Operators</li> <li>Dosimeter must be worn in room when gun is running (RCA)</li> <li>Wear appropriate PPE for lasers</li> <li>Do not overload circuits</li> <li>Keep floor clear</li> </ul> |

|  |  | Do not work on systems without proper training   |
|--|--|--|
| FEMTOSECOND LASER LAB (110)  • Lasers (3B, 4)  • Power supplies/Ion pumps  • Chillers  • Gases (O2, NF3)   | <ul> <li>Eye &amp; skin injury (laser light)</li> <li>Shock hazards</li> <li>Falling objects</li> <li>Gas hazards</li> </ul>                             | <ul> <li>Cover all electrical hazards</li> <li>Only approved Laser Operators may be present during laser operations</li> <li>Wear appropriate PPE for lasers</li> <li>Dispose of excessive equipment which might block egress</li> <li>Lasers to be used by trained personnel</li> <li>Proper training for gas handling</li> </ul> |
| <ul> <li>CATHODE TEST LAB (111)</li> <li>Vacuum systems</li> <li>Power supplies/ion pumps</li> <li>Gases (O2, NF3, H2)</li> <li>Chemicals (solvents, bases)</li> <li>Experimental apparatus</li> </ul> | <ul> <li>Shock hazards</li> <li>Burns (chemical)</li> <li>Eye &amp; skin damage (chemical)</li> <li>Gas hazards</li> <li>Explosion, implosion</li> </ul> | <ul> <li>Cover all electrical hazards</li> <li>Chemicals to be handled by trained personnel only</li> <li>Read MSDS's</li> <li>Secure equipment</li> <li>Use appropriate PPE for chemical handling</li> </ul>  |
| HIGH BAY (100)  • Power supplies  • Vacuum system  • Bunker (radiation source)  • Equipment storage  • Refrigerators   | <ul><li>Shock hazards</li><li>Falling objects</li><li>Ionizing radiation</li></ul>   | <ul> <li>Stay out of HV cage area (qualified technicians only)</li> <li>Do not overload circuits</li> <li>Do not enter bunker without proper training</li> </ul>   |

| Completed by | Print Name | Date |
|--------------|------------|------|
|--------------|------------|------|

| Area Responsible | : Thomas Galetto | 2/27/07 |
|------------------|------------------|---------|
| Participants     | : Axel Brachmann |         |
|                  | Jym Clendenin    |         |
|                  | Takashi Maruyama |         |
|                  |                  |         |
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