Minors in Laboratories or Other Potentially Hazardous Areas

Policy Owner: Environmental Health and Safety Division

Effective Date: Originaly Issued: March 14, 2007

Point of Contact: Cognizant Manager (Danielle Daniely, Ph.D. Biological Safety Officer)

Version: 3 Revised: September 28, 2008 Revised: March 21, 2013

Policy Statement

Persons under 18 years of age are prohibited from entering laboratory areas or other areas where potentially hazardous materials or conditions may be present except when:

1. Such entry is part of an escorted, scheduled tour or,
2. Such entry is part of an institutionally sponsored educational program such as the SEEP program or,
3. Such entry is by a student enrolled at GRU or,
4. Such entry has been pre-authorized in writing by the Department Chair on a per visit basis and approved by the Associate Vice President (AVP), Environmental Health and Safety (EH&S) or,
5. Such entry is approved by the AVP, EH&S in accordance with this policy.

Reason for Policy

All accepted Occupational Health and Safety exposure and risk assessments are based on the risks to healthy human adults and do not account for differential effects on immature bodies/systems. Because of their biological, social, and maturational characteristics, minors have unique and substantial risks for work-related injuries and illnesses which must be assessed and addressed prior to permitting a minor to enter laboratory areas or other areas where potentially hazardous materials or conditions may be present. The presence of minors must also comply with all Federal and State regulations and Institutional Policies and Procedures.

Any laboratory could be considered a potentially hazardous area, whether these hazards are presented by biological materials, chemicals, or radioactive substances. Few studies exist which adequately characterize potential differential health consequences of exposure of minors to these hazards. For this reason, the GRU Radiation Safety Guide, Biological Safety Guide, and the Chemical Safety Guide all prohibit persons under the age of 18 from entering laboratory areas or other areas where hazardous materials or conditions may be present, except when any of the situations outlined in the policy statement apply.

While GRU recognizes that volunteering or working within a laboratory can provide a valuable learning experience, minors under the age of 18 years are restricted from being in laboratories unless special provisions are made and followed to address the following concerns:

- Federal law explicitly prohibits any minor under the age of 18 from working in areas where exposure to radiation may occur or where explosive materials may be stored or used. These prohibitions limit the GRU laboratories in which a minor will be permitted to enter. In addition, because of the increased risk
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of illness or injury, GRU has determined that minors will not be permitted in any non-human primate or ABSL-2 areas or in BSL-3 laboratories. Minors also will not be permitted to transport or ship hazardous materials outside of the laboratory.

- Risk communication and the comprehension of those risks and mitigation methods are important safety measures within the biomedical laboratory. Comprehension of these risks may require a certain level of educational background and maturity to understand. For this reason, only minors 16 years of age or older with an educational background to comprehend basic biological and chemical concepts sufficient to understand the safety issues should be permitted within the laboratory.
- The signed consent form to allow minors to enter laboratories requires that the parent or guardian be fully informed of the risks faced by their child in these areas. For this reason, the consent process must detail the risks to which the minor may be exposed and steps that will be taken to minimize these risks.
- Because of a minor’s lesser degree of maturity, knowledge, and familiarity with a potentially hazardous laboratory environment, constant and direct supervision of the minor in a laboratory is required to ensure the minor’s safety. This means activities engaged in by the minor within the laboratory must be closely monitored. This requires physical proximity (i.e. within the line of sight of the supervisor) and attentiveness of the supervisor.
- An evaluation and risk assessment by a qualified medical professional is important for those whose health status may differ from the “healthy human adult” standard—such as a minor (as described in the CDC/NIH BMBL, NIH Guidelines, OSHA and GA State Dept. of Labor standards).
- Health care provisions must be made for the minor in case of incident, exposure, or illness which may result from participating in laboratory activities.

Definitions

ABSL-2 - Animal Biosafety Level 2
Biological Agent - An infectious or potentially infectious biological material
CDC - Center for Disease Control
BMBL - Biosafety in Microbiological and Biomedical Laboratories, a CDC/NIH guideline
NIH - National Institutes of Health
Chemical Agent - A potentially harmful chemical
EH&S - Environmental Health and Safety Division
IBC - Institutional Biosafety Committee
IRB - Institutional Review Board
IACUC - Institutional Animal Care and Use Committee
LAS - Lab animal services
OHRP - Office of Human Research Protections
OSHA - Occupational Safety and Health Administration
PI - Principal Investigator
Minor - A person, 16 or 17 years of age
NIOSH - National Institute for Occupational Health and Safety
SEEP - Student Educational Enrichment Program
SOP - Standard Operating Procedure
Process/Procedures

1. The PI must complete an Application for Authorization of a Minor to Work or Volunteer in a Laboratory or Other Hazardous Area (Minor’s Application) and submit the form to EH&S for review and approval. This form will document adherence to the following issues:
   a. Minors under the age of 16 years will not be permitted into the laboratory.
   b. Minors will not be permitted in areas which may result in exposure to radioactive substances or ionizing radiation.
   c. Minors will not be permitted in areas in which explosives or articles containing explosive components are present or stored.
   d. Minors will not be permitted in any laboratory area not documented by the PI on the Minor’s Application.
   e. Minors will not be permitted in laboratories unless direct (i.e. line of sight) supervision is maintained as detailed in the application.
   f. The minor will adhere to the same safety standards as all other laboratory members, including completion of all required training modules.

2. The PI must receive a signed Health Questionnaire from a licensed health care provider and submit it to EH&S as part of the Minor’s Application. This questionnaire will illuminate any health concerns which would present an additional risk to the minor while working in a research laboratory with biohazardous or chemical agents. The questionnaire will be reviewed by GRU’s Employee Health and Wellness Office and medical clearance provided to EH&S.

3. The PI must complete a Consent For Minor’s Presence In Laboratory form (Consent Form) and submit the form to EH&S for review and approval as part of the Minor’s Application. Informed consent of the parent(s) or guardian(s) of the minor who will work or volunteer in the laboratory will document the risks associated with the hazards present in the laboratory and mitigation actions to reduce those risks.

4. The PI must adhere to all GRU Safety/Compliance Committee (IBC, IRB, ICC, IACUC) policies and procedures, including the submission and approval by the respective committees or their designees of protocol amendments to add the minor to their protocols.

5. After EH&S and the Safety/Compliance Committees have reviewed the Minor’s Application and Consent Form, the PI must address all concerns and incorporate all requested edits into the final version of the Application and Consent Form and re-submit to EH&S.

6. Once the AVP, EH&S sends approval to the PI. The PI must receive a signed Consent Form (final version) from the parent/guardian of the minor and submit a copy to EH&S. As a part of the consenting process:
   a. The PI/Supervisor will discuss with the parent/guardian the hazards present within the laboratory that the minor may be working with.
   b. The PI/Supervisor must describe the safety procedures that are present to minimize their minor’s exposure risks. These include a discussion and documentation of any precautionary and emergency medical provisions that must be provided to the minor.
   c. The PI/Supervisor will give the parents/guardians and minor sufficient time to read the Consent Form, the Minor’s Application (final version) and related institutional or laboratory SOPs to ensure that the parents’/guardians’ and minor’s questions have been answered before they sign the Consent Form.
   d. The signed Consent Form and Minor’s Application should be kept in a secure location in the principal investigator’s/supervisor’s area.
   e. The parents/guardians and minor must be re-consented when there is a change in the risk—including different materials, operations, or locations which would increase the risks to the minor. A copy of the signed revised Consent Form should be sent to EH&S.

7. The minor must complete all safety training requirements required of any new laboratory staff prior to initiation of work within the laboratory, in addition to one-on-one training with an EH&S employee(s) as necessary for the types of hazards that the minor will be exposed to.
Failure to comply with any provision detailed on the *Minor’s Application*, Institutional Policies, or governmental regulations will result in termination of authorization for the minor to enter the laboratory.

Forms/Related Documents
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FORMS:
Application for Authorization of a Minor to Volunteer in a Laboratory or Other Hazardous Area:
http://www.georgiahealth.edu/services/ehs/index.html

Parental Consent For Minor’s Presence in Laboratories:
http://www.georgiahealth.edu/services/ehs/index.html

APPENDICES:
GRU Safety or Compliance Committees or Offices:
Biological Safety Office:
http://www.georgiahealth.edu/services/ehs/biosafe/

Chemical Safety Office:
http://www.georgiahealth.edu/services/ehs/chemsafe/

Radiation Safety Office:
http://www.georgiahealth.edu/services/ehs/radsafe/

REFERENCES:
Biological Safety Guide:
http://www.georgiahealth.edu/services/ehs/biosafe/PDFs/bioguidejun08.pdf

Chemical Safety Guide:

Radiation Safety Guide:
http://www.georgiahealth.edu/services/ehs/radsafe/rmanual1/rindex.htm

U.S. Department of Labor (US DOL) Occupational Safety and Health Administration (OSHA) Fair Labor Standards Act (FLSA) Title 29, Chapter V Code of Federal Regulations, Part 570 Child Labor Regulations, Order and Statements of Interpretation:

Youth and Labor:
http://www.dol.gov/dol/topic/youthlabor/agerequirements.htm

Hazardous Jobs:
http://www.dol.gov/dol/topic/youthlabor/hazardousjobs.htm

Georgia State Department of Labor Hazardous Occupations
http://www.dol.state.ga.us/em/cl_hazardous_occupations.htm

Center for Disease Control (CDC), National Institute of Occupational Safety and Health (NIOSH) NIOSH Safety and Health Topic: Young Worker Safety and Health:
http://www.cdc.gov/niosh/topics/youth/

Recommendations to the U.S. Department of Labor for Changes to Hazardous Orders:
http://www.cdc.gov/niosh/docs/NIOSHRecsDOLHaz/default.html

CDC/NIH Biosafety in Microbiological and Biomedical Laboratories (BMBL):
http://www.cdc.gov/biosafety/publications/index.htm
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<th>Walter S. Loring, MS, CHP</th>
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<td>Title(s)</td>
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