Readiness Review Activity Approval Form

Activity Number

___ **New Activity**
___ **5-Year Review** _____ **Last Reviewed**
___ **New Hazard**

Part 1:	**Activity Identification Information.** (completed by Activity Supervisor / Group Leader) Please complete and send this form with the Hazard Identification Checklist, Hazard Management Statement and other supporting documentation to ESH&A in G40 TASF.

Activity Title: _____ **Room:** _____ **Bldg:** _____

Activity Supervisor: _____ **Phone:** _____

Office Address: _____ **E-mail:** _____

Please provide a brief description of your proposed activity: _____

_____

_____

_____

I have reviewed the hazards identified and approve this activity.

_____ **Employee #:** _____ **Date:** _____
Group/Section Leader

_____ **Employee #:** _____ **Date:** _____
Program Director/Dept. Manager

Employee #: _____ **Date:** _____

_____
Reviewed by: SC/SR

Part 2:	**Developmental Approval** (completed by ESH&A) ESH&A will review the activity before acquisition, fabrication, or testing. ESH&A will categorize the activity as a Hazard Level II, or III according to the types of hazards and level or risks associated with the activity.

Safety Review Facilitator: _____ **ESH&A Hazard Level:** _____
ESH&A Lead Specialist: _____ **Test Plan Date:** _____

Approved by:

_____ **Employee #:** _____ **Date:** _____
ESH&A Lead Specialist

Hazard Level Concurrence: _____ **Date:** _____
SRC Facilitator

Part 3:	**Operational Approval Recommendation** (completed by ESH&A) Approval is required before operation of an activity rated ESH&A Hazard Level II, III. Signature by the ESH&A Lead Specialist recommends operational approval to the SRC.

Confirmed: **SOP:** _____ **Training:** _____

Recommended by:

_____ **Employee #:** _____ **Date:** _____

Part 4:	**Operational Approval** (completed by Safety Review Committee)

SRC Approval Signature:

_____ **Employee #:** _____ **Date:** _____

Activity ES&H Hazard Identification Checklist

Name of Activity: _____

Activity Supervisor: (Print)_____ Location: Room _____ Building _____

ES&H Rep.'s/Coor.'s Signature	Employee #	Date	Group Leader's Signature (Approved by)	Employee #	Date

IMPORTANT! Attach a hazard management statement for each item checked below.

Check all of the following that are applicable to/or involved with the activity. This checklist will be utilized by ESH&A in review of the activity.

A. Chemical and Biological Concerns

1. ___ Mercury or mercury compounds (e.g. dimethyl mercury).
2. ___ Research involving human subjects or animal studies.
3. ___ Chemicals requiring personnel medical monitoring **(see "Federally Regulated Hazards": (** http://www.ameslab.gov/files/forms/FormHazardInventory.pdf).
4. ___ Hazardous or toxic chemicals (http://www.ameslab.gov/files/documents/epa_plist.pdf**).**
5. ___ Extremely hazardous substances (http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=5fc8e8e3aaf2d0c06a2e4422bd279c23&rgn=div5&view=text&node=40%3A27.0.1.1.11&idno=40#40:27.0.1.1.11.0.9.6.14).
6. ___ Flammable chemicals (flashpoint < 100ºF) in quantities greater than 4 liters (1 gallon) in one room.
7. ___ Perchloric or picric acid, peroxide-formers **(http://www.ameslab.gov/files/documents/peroxide_forming_chems.pdf)**.
8. ___ Pyrophoric or explosive materials **(http://www.ameslab.gov/files/documents/chemical_incompatibilities.pdf).**
9. ___ Activities that generate potentially hazardous ambient air concentrations of nanoscale and other particulates, mists, fumes, vapors, or asphyxiates.
10. ___ Generation of chemical, mixed, or radioactive waste (as defined by the Ames Laboratory Waste Management Program Manual).
11. ___ Generation of new waste streams, or a > 20% increase in an existing waste stream.
12. ___ Biological materials (including human, plant or animal pathogens) (http://www.ameslab.gov/files/documents/biohazard_materials.pdf).
13. ___ Suspected and/or confirmed carcinogens (http://www.ameslab.gov/files/documents/carcinogenic_substances.pdf).
14. ___ Activities that involve the use of engineered nanoscale materials (< 100 nanometers).

B. Radiation Concerns

1. ___ Radioactive materials, radiation sources.
2. ___ Lasers (excludes laser printers and pointers).
3. ___ Radio frequency (RF) or microwave generators (excluding personal microwave ovens) of greater than 10 watts average output power.
4. ___ Ultraviolet radiation, which could expose personnel (e.g. arc welding, inductively coupled plasma, UV reactors, xenon lamps, etc.).
5. ___ Generation of Radioactively contaminated waste as defined by the Ames Laboratory Waste Management Program Manual.
6. ___ X-ray generating devices.

C. Electrical Concerns

1. ___ Work with exposed electrical wiring or parts with voltages greater than 50 volts.
2. ___ Work with stored energy systems (e.g. capacitor banks > 10 joules; station battery systems > 50 volts).
3. ___ Voltage systems of greater than 600 volts.
4. ___ Current systems of greater than 25 amps.
5. ___ Electrical devices not certified by a Nationally Recognized Testing Laboratory (e.g. Underwriters Laboratory, CSA, etc.).

D. Environmental Concerns

1. ___ Potential to release hazardous, radioactive materials or oil products (include oil filled equipment/containers with a capacity ≥55 gallons) to the sanitary or storm sewers, soil.
2. ___ Potential for release of chemical, physical, radiological agents (nanoscale and other particulates, fumes, mists, or vapors) to the air via hood or other exhaust system.
3. ___ Transportation of hazardous or radioactive materials, including laboratory-to-laboratory and on-site or off-site.
4. ___ Activities requiring an emission permit.

E. Physical and Mechanical Concerns

1. ___ Fabrication of major (large mass or volume) equipment, structural supports.
2. ___ Work that is done in the proximity of floor openings or on elevated work platforms or scaffolds.
3. ___ Activities that require use of safety eyewear, respirators and/or other forms of personal protective equipment (PPE).
4. ___ Use of a glove box.
5. ___ Torch work, exposed source hot-work, or exposed heat sources (e.g. welding, soldering, arc welding, furnaces, etc.).
6. ___ Rotating parts or pinch points.
7. ___ Fluids or gases and pressure delivery systems, other than installed building utilities (> +/- 5 psig).
8. ___ Pressure vessels, vacuum vessels, and glass systems (> +/-5 psig).
9. ___ Use of hoists, cranes or rigging.
10. ___ Cryogenic systems (including thermal and/or oxygen deficiency hazards).
11. ___ Mechanical stored energy systems (e.g. flywheels, mechanical springs, etc.).
12. ___ Electromagnetic systems.

F. Workplace Concerns

1. ___ Confined space (as defined by Ames Laboratory ESH&A Program Manual, Section 5.18).
2. ___ Activities that limit means of egress.
3. ___ Temperature or humidity extremes.
4. ___ Work which produces acute noise that interferes with normal conversation.
5. ___ Activities that involve tasks of prolonged repetitive motion.
6. ___ Activities that involve lifting/moving of 20 pounds, lifting from awkward positions, or pushing/pulling of heavy objects.

G. Other Concerns

1. ___ Activities involving sub-contractors.
2. ___ Public tours of Ames Laboratory facilities or the use of equipment/materials for public displays.
3. ___ Area renovation.
4. ___ Activities that involve equipment valued at $100,000 or more in one room or laboratory.
5. ___ Activities to be performed at an "off-site" location (ISU lab space, field location, or other off-campus facility). Only check this item if any other item is checked

Personal Protective Equipment Needs Certification

Group / Department _____ Building _____ Room _____
Activity Name _____ Activity Number _____
Task / Process _____

MARK THE APPROPRIATE BOXES AND INDICATE SPECIFIC INFORMATION IF NECESSARY

	Safety Glasses (with side shields)
	Lab Goggles (Chemical Quantities Greater than 1 Liter)
	Face Shield (Chemical Quantities Greater than 1 Liter)
	Laser Glasses / Goggles
	Hard Hats
	Safety Shoes / Boots

	Hearing Protection
	Respiratory Protection (HF, FF, Dust, SAR)
	Gloves (Latex, Nitrile, Leather, CYRO, etc.)
	Protective Clothing (Aprons, Lab Coats, Sleeves, etc.)
	Other

NOTE: A new PPE Certification Form shall be completed when changes are made to the work activity.

Comments:

Activity Lead Specialist Name (print): _____ Signature: _____ Date: _____

Activity Supervisor Name (print): _____ Signature: _____ Date: _____

EMPLOYEES SHALL COMPLY WITH THE PPE REQUIREMENTS

Readiness Review Training Identification Form

For Activity # _____ Title: _____

Instructions: Indicate all necessary training modules for employees to complete prior to being exposed to the hazards associated with this activity. Completion of training will be verified at the time of review; verification of subsequent authorized users is the responsibility of the Activity Supervisor.

All Users	See Comments	Program	Module #
		INDUSTRIAL HYGIENE	
		Chemical Hazard Communication	AL-137
		Cylinder Safety	AL-022
		Respirator User Safety Training	AL-011
		Dust Mask Usage (Form)	AL-211
		BBP Exposure Control Plan Training	AL-035
		Hydrofluoric Acid Training	AL-134
		Hazard Identification	AL-130
		Asbestos Awareness	AL-141
		Asbestos & 16 hr. O & M	AL-142
		Asbestos Contractor/Supervisor	AL-159
		Lead Awareness	INH 06
		Nano Technology Awareness	AL-208
		Biohazardous Materials	AL-202
		Safe Use of Cryogens	AL-206
		ELECTRICAL SAFETY	
		Research Electrical Safety Training	AL-191
		Basic Electrical Safety	AL-019
		High Voltage Electrical	AL-020
		Safe Equipment Wiring	AL-063
		ADP and Small Signal Wiring	AL-064
		ENVIRONMENTAL	
		Hazardous Waste Generator Training	AL-073

All Users	See Comments	Program	Module #
		INDUSTRIAL SAFETY	
		Personal Protective Equipment (PPE)	AL-133
		Hoisting & Rigging (Crane Safety)	AL-014
		Machine Safeguarding	AL-131
		Scaffolding Training	AL-139
		Ladder Safety (Pamphlet)	AL-136
		Lockout/Tagout (LOTO)	AL-012
		Confined Space Entry (CSE)	AL-023
		Fall Protection Training	AL-145
		Vehicle Mounted Elevating & Rotating Work Platforms (Boom Lifts)	AL-144
		Aerial Lift (Scissors Lift)	AL-179
		Welding Safety & Hot Work	AL-149
		Torch Work (Pamphlet)	AL-184
		Hoisting & Rigging Inspector	AL-158
		Fork truck Training (EHS)	AL-013
		Sprains and Strains	AL-183
		RADIOLOGICAL	
		GERT	AL-074
		Laser Safety Training	AL-070
		Radiological Worker II (Materials)	AL-077
		X-ray Safety Training	AL-076
		Radiation Survey Instrument Training	AL-157/AL-207
		Radiation Technician	AL-122
		OTHER:	

Comments: _____

Lifting Hazard Identification Form

Group Leader:

Activity Supervisor:

Activity:

Does this activity involve lifting of 20 pounds or more, lifting from awkward positions, or pushing/pulling? **Yes _____ No _____**

If yes, Please complete the following table.

Lifting, Pushing, Pulling	**Never**	**Occasional**	**Frequent**	**Remarks/Comments** (specific examples)
20 to 40 lbs.				
More than 40 lbs.				

Activity Supervisor Signature: _____

Group Leader's Signature: _____

ESH&A Lead Specialist: