Contractor Safety Requirements

Introduction:
The following are the MIT Plasma Science and Fusion Center's contractor safety requirements. Please read this material carefully and be prepared to sign and date the back page indicating that you will comply with these requirements in the event you/your company is hired by MIT to perform any service. Please feel free to contact Matt Fulton, PSFC Facilities Manager, 253-8917, or Catherine Fiore, PSFC Safety Officer, 253-8440, with any questions.

Prior to Operation:
1. General safety operating requirements will be discussed at the Contractor's Orientation Meeting, prior to the start of the job.

2. Prior to initiating work, the project engineer/coordinator (either the person contracting the work or the technical supervisor in charge of the area where the work is to be done) will conduct with you (contractor, project leader, or supervisor) a project orientation meeting to discuss the hazards of the project, pertinent safety rules of the facility, and other applicable issues.

3. The contractor must advise the PSFC Project Coordinator of hazards associated with their proposed work operation (chemicals, gases, dusts, radiation). Contractors will not be permitted to bring hazardous chemicals or materials onto MIT property without first providing the Material Safety Data Sheet, in advance, to the Project Coordinator for approval by the PSFC Safety Officer. The use of radiation producing equipment or radioactive material in PSFC environs will require that the MIT Radiation Protection Office be notified.

4. Applicable Material Safety Data Sheets will be provided to the contractor/project supervisor at the orientation session, in advance of the project, so that their employees may be educated and advised of any chemical or physical hazards they may encounter at the job site.

Supervision of Employees:
1. All contractors who conduct work at the PSFC will be responsible for complying with all applicable Federal, State, Local, OSHA, and MIT Environment, Health and Safety regulations while on MIT property. The contractor is responsible for notifying his/her personnel of specific hazards, emergency procedures, safe work practices, and safety rules which must be followed while on the job site.
2. The contractor is responsible for supervision of his/her work force and any subcontractors with regard to all aspects of the project at MIT. He/She agrees that all procedures discussed during the orientation are understood by the workers and will be followed.

3. The contractor will be responsible for providing his/her employees with medical care and first aid treatment. MIT first aid facilities may be used only in an emergency situation.

4. Loose or hanging clothing, jewelry, and long hair are prohibited near moving machines or parts.

5. Smoking is not permitted in this facility.

Safety Equipment:
1. The contractor is responsible for compliance with MIT and OSHA regulations with regard to furnishing their employees with all necessary personal protective equipment and all tools and equipment needed to perform service at MIT.

2. Head protection will be worn when there is an exposure to head injury from falling objects or bumps.
   A. Hard hats must be worn in all areas where work is being performed overhead and the danger of falling objects exists and in areas posted as "Hard Hats Required". Hard hats will be designed in accordance with ANSI Z89.1-1981 "Safety Requirements for Industrial Head Protection".
   B. Whenever a potential for head injury exists due to low head room, and anytime anyone must work, pass through, or visit an area designated as a "Hard Hat Area", hard hats must be worn for proper head protection.

   The above is applicable to all PSFC personnel, temporary work forces, vendors and contractors.

3. In accordance with PSFC policy, eye protection shall be worn when performing a task which may endanger sight, and in all designated areas where safety glasses are required.

4. Hearing protection shall be worn as required.

Work Area:
1. The contractor is not permitted to manipulate any switch controls, valves or instruments without advance approval of the PSFC Plant Engineer or PSFC Safety Officer. The contractor will request permission, in advance, before commencement of any work on piping, electrical distribution systems, or utility systems.

2. If welding is to be performed, a welding permit from the Cambridge Fire Department must be obtained prior to commencement of any work. Prior notice must be given to MIT Facilities so that smoke detectors in the area can be disabled while the work is done. The permit is to be retained at the job site until completion of the job.

3. Equipment lock-out mechanisms (locks and tags) shall be used in this facility per OSHA standards and PSFC Lockout/Tagout Procedures.
A. Contractors will comply with OSHA (or local, more stringent requirements) 29 CFR 1910.147 standards, "The Control of Hazardous Energy", and shall not begin work until procedures are coordinated with the PSFC Plant Engineer.

B. PSFC locks and tags will be added (in addition) to outside contractor locks, and shall not be removed until the PSFC Plant Engineer determines that it is safe to re-engage the energy source.

4. Practice good housekeeping at all times. Do not leave materials or equipment blocking aisles, walkways, stairs or other paths of egress.

5. All overhead work shall be marked with signs - "Person Working Overhead".

6. Defective tools or equipment shall not be used. All tools and extension cords shall meet or exceed applicable standards (ANSI, NIOSH, MSA, etc.)

7. Equipment requiring guards and safety devices shall be in good operating condition and shall have all guards in place and all safety devices working properly.

8. All ladders shall be ANSI approved and used in accordance with all PSFC and OSHA standards (1A-300 lb. are preferred). All ladders shall be inspected each time before use.

9. Machinery and equipment shall not be started before a thorough check of the work area has been made by the project coordinator to assure that people are clear of any moving parts or operations, and all affected employees have been notified.

10. No person shall activate or operate powered industrial equipment without the authorization of the PSFC Safety Officer or Plant Engineer.

11. No confined space will be entered by contractor personnel unless they follow recognized safe confined space entry procedures such as in U.S. NIOSH guidelines, ANSI Standard or other comparable State, Local, or Federal regulations. A confined space is defined as a vessel, tank, pipeline, pit or enclosed space where dangerous air contamination or lack of oxygen may be present due to a manufacturing process or work procedure, or where an egress path may be limited.

   A. The PSFC Safety Officer shall be notified of any planned confined space entries.

   B. No personnel shall enter a confined space before a permit has been issued by the PSFC Safety Officer.

   C. All contractors must supply their own monitoring and safety equipment for confined space entry.

12. Contractors will observe and honor all signs posted in the area in which they are working. Restricted areas are not to be entered without the express direction of the project coordinator.
Emergency Numbers:
The following emergency numbers are supplied to you for your use:

<table>
<thead>
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<th>Service</th>
<th>Off Campus</th>
<th>On Campus</th>
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<tbody>
<tr>
<td>Life Threatening Emergencies:</td>
<td>911</td>
<td>DIAL 100</td>
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<tr>
<td>MIT Safety Office:</td>
<td>617-253-4736</td>
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<td>MIT Industrial Hygiene Office:</td>
<td>617-253-2596</td>
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<tr>
<td>MIT Radiation Protection Program</td>
<td>617-253-2180</td>
<td>3-2180</td>
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<tr>
<td>Catherine Fiore, PSFC Safety Officer:</td>
<td>617-253-8440</td>
<td>3-8440</td>
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<tr>
<td>Mat Fulton, PSFC Facilities Manager</td>
<td>617-253-8917</td>
<td>3-8917</td>
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<tr>
<td>Bill Byford, PSFC Plant Engineer:</td>
<td>617-253-5982</td>
<td>3-5982</td>
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<tr>
<td>Cambridge Fire Department:</td>
<td>617-876-5800</td>
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<tr>
<td>Ambulance:</td>
<td>911</td>
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I have received copies of the "Notice to All PFC Personnel" and the "PSFC Contractor Safety Requirements", I understand these rules and agree to comply with them in entirety.

__________________________________________
Contractor Representative

__________________________________________
Company Name

__________________________________________
Date

__________________________________________
PSFC Project Coordinator/Technical Supervisor

__________________________________________
Date