

Physics Division Work Planning Requirements

The following are Physics Division requirements related to work planning, control and authorization for projects and test set ups in all Physics division work areas across the laboratory. When planning the testing and commissioning of experimental equipment, careful consideration should be given to the hazards, consequences and cost of that equipment when doing the risk analysis. Things to consider are;

Location –Requirements such as power requirements, water, gas, cryogenics, safety boundaries

Dimensions, weight – How will it be held? If a support structure is used, who did the design/fabrication? How will it be positioned and moved?

Special Hazards associated to build/operate the setup –flammable materials, oxygen deficiency hazard, high pressure, radioactivity, toxic or noxious fumes, Repetitive handling/operation, special equipment (e.g. gloves)?

Electronic equipment – Was it developed in-house (including another lab or university). Was the equipment borrowed or bought? Was the equipment modified? We are required to check (certify?) equipment which has no seal of approval from a Recognized Testing Laboratory.

Personnel to work on setup – Is the worker Jlab Staff, a professor, Student? Do they have previous experience working on the same or similar setups? Do any of the steps they will perform require specialized training (e.g. laser, ladder, lock & tag)? Do the personnel involved in this activity understand the risks involved and how will they be informed. If at this point you want to complete a written Task Hazard Analysis it can be found here

<https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-17166/3210T1Form.doc>

- Any small setup or task with total duration of less than two weeks requires an informal task hazard analysis (without formal documentation). If such an informal task hazard analysis results in a (pre-mitigated) risk code of less than 2 as determined by the risk code assignment table in chapter 3210 appendix T3 of the ESH&Q manual no further documentation is required. The risk Code Assignment table can be found at <https://www.jlab.org/ehs/ehsmanual/3210T3.htm>
- If the informal task hazard analysis from the risk code assignment table results in a risk code of 2, a minimum of a JLab “Task List” is required (HAlist, HBlist, HClist, HDlist, PSlist), and one should consider a written work control documents such as an Operational Safety Procedure (OSP) or Laser Operational Safety Procedure (LOSP). An OSP Writing Guide and examples can be found [Here](#). Task lists as well as the Work Planning, Control and Authorization Flow Diagram can be found at <http://www.jlab.org/listsites/>

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- Regardless of the risk code, any setup, test or task that has a total duration of more than two weeks requires an appropriate JLab Task List. A paper copy of the documentation must be posted at the work place. Once again, depending of the equipment and circumstances one should consider a written work control document (OSP, LOSP).
- Any task that has a risk code of 3 or larger **requires** a written work control document, regardless of the length of the task. See point 4 below. A paper copy of the work control documentation must be posted at the work place. An OSP Writing Guide and examples can be found [Here](#).
- Any experimental **system** being assembled, tested or being installed at Jefferson Lab that is destined to become base or major equipment in an experimental Hall will require an OSP prior to initial setup and testing regardless of the risk code. This OSP will include all pertinent information for the Hazards, installation, maintenance and operation of the equipment so as to be easily transferred to the Experimental Hall's operations manual.

- Further useful information and steps to consider:

1. Review JLab EH&S Manual Chapter Appendix 3210 T1. The guidance provides the expectations and how we implement Integrated Safety Management System into planning and execution of work.

<https://www.jlab.org/ehs/ehsmanual/3210T1.htm>

2. If you are unsure, complete a written Task Hazard Analysis (THA) Worksheet for the work being planned:

<https://www.jlab.org/ehs/ehsmanual/3210T1.htm> and links therein.

3. When in doubt as to if a work test set up documentation is required, or you have related questions please feel free to contact the Physics Division EH&S Liaison or the Division Safety Officer.

4. Additional guidance is available from The Hall engineers and Work coordinators, as well as members of the Detector, Fast Electronics and Spectrometer Support Groups. [Click here for a link to these resources](#).