

Fire Science Laboratory

Master Checklist

This checklist provides the steps to be completed for those who want to use the Fire Science Laboratory. These steps must be reviewed and completed before any testing has begun. Related information, including safety and technical references, can be found in the Fire Science Laboratory office and <http://www.wpi.edu/Academics/Depts/Fire/Lab/Safety/introduction.html>.

- 1. Review the Fire Science Laboratory Safety Guidelines, [Document F-2](#).
- 2. Participate in a Fire Science Laboratory Familiarization Tour, [Document F-3](#).
- 3. Read about Fire Science Laboratory Etiquette, [Document F-4](#).
- 4. Understand the Safety Guidelines and be comfortable with what you learned on the Familiarization Tour. Ask questions.
- 5. Review Laboratory Equipment SOP's for Cone, LIFT, LODS, Natural Gas Line, Smoke Chamber, Vaporizer or PDA Syatem and complete a Review Sheet if working on this typical Laboratory Equipment; or develop an Experimental Plan if conducting non-typical testing. See the following documents as appropriate.
 - * Cone Standard Operating Procedures, [Document F-5](#).
 - * LIFT Standard Operating Procedures, [Document F-6](#).
 - * LODS Standard Operating Procedures, [Document F-7](#).
 - * Smoke Chamber Standard Operating Procedures, [Document F-8](#).
 - * Natural Gas Line Standard Operating Procedures, [Document F-9](#).
 - * Vaporizer Standard Operating Procedures, [Document F-24](#).
 - * Gas Monitor and Alarm System Standard Operating Procedures, [Document F-26](#).
 - * PDA System Standard Operating Procedures, [Document F-27](#).
 - Cone Review Sheet, [Document F-10](#).
 - LIFT Review Sheet, [Document F-11](#).
 - LODS Review Sheet, [Document F-12](#).
 - Smoke Chamber Review Sheet, [Document F-13](#).
 - Natural Gas Line Review Sheet, [Document F-14](#).
 - Vaporizer Review Sheet, [Document F-25](#).
 - PDA Review Sheet, [Document F-28](#).
 - * How to develop an Experimental Plan, [Document F-15](#).
 - * Experimental Plan Template, [Document F-15a](#).
 - * Short Form for Short Tests, [Document F-15b](#).
 - * Experimental Plan Checklist for Advisors, [Document F-16](#).
 - * Hazardous Waste, [Document F-30](#).
 - * Available References, [Document F-23](#).
- 6. Submit a Sign-up and Summary Sheet, [Document F-17](#). Attach the appropriate Review

Sheet or your Experimental Plan to be reviewed by your advisor and a cross check professor, using the Experimental Plan Checklist for Advisors. If your advisor is not a Fire Protection Engineering professor, then the Fire Science Laboratory Faculty Coordinator ([Professor Nicholas A. Dembsey](#)) must be the cross check.

- 7. Follow the Instructions for Placing Purchase Orders, [Document F-18](#), for all purchases. Use the Purchase Order Request Form, [Document F-19](#), and if needed, the Return Form, [Document F-20](#). The professor responsible for the account to be charged must give his signed approval for the purchase. The Faculty Coordinator is responsible for the lab equipment, lab supplies and service to industry accounts.

The lab keeps stock as a convenience for students. This means that stock is kept on hand for occasions when you forget something so you don't lose time waiting for the item to come in. You still need to order the item using your project account and replace the lab stock. Also, fill out Material Used, [Document F-29](#) for any stock used or Material Borrowed, [Document F-31](#) as applicable.

- 8. Schedule set-up and testing time with the Fire Science Laboratory staff. Before initially conducting any experiments, you MUST review your experimental setup and procedures with a member of the lab staff. For typical Laboratory Equipment, you need to schedule a training session before operating this equipment. When arriving or leaving the lab to work, sign in or out on the board. Be aware of other's activities and inform them of your activities. Know what is going on !!
- 9. Insure one other person, who has completed at least items 1-4, is present at all times during testing. Alternatively, this person can be someone who has submitted a Safety Observer Sign-up Sheet, [Document F-21](#).
- 10. Follow the appropriate Laboratory Equipment Standard Operating Procedures or your Experimental Plan. Any change in your test plan requires an updated Experimental Plan and a Sign-up and Summary Sheet.
- 11. Before and during all set-up, testing and shut-down, review what is happening and what is expected so that all participants are on the same page and understand every detail including emergency procedures. AT ALL TIMES when in the Fire Science Laboratory, observe the Fire Science Laboratory Safety Guidelines and use common sense.
- 12. Troubleshoot problems as required. The lab staff is available to assist in all aspects related to the lab, including experimental design and set-up, running experiments and troubleshooting. Additionally, Troubleshooting Guidelines, [Document F-22](#) is available to help with experimental problems.
- 13. Workstudy students need to fill out a Workstudy Schedule, [Document F-32](#) so the labstaff knows when they are available.