Lab Operations Checklist

Lab(s):	Room 332 SSMB, College of Charleston	Date Training Initiated:			
PI Name:	Tim Barker				
Student Name:		Student ID #			

Activity	Description	student initials	date	PI initials
	Mandatory training			
Safety and Industrial Hygiene	Location of safety shower, eyewash, fire extinguisher, spill kit, first aid kit, respirators, safety glasses			
	General departmental research training completion			
	Incident reporting guidelines and procedures			
	Monthly lab review and audit procedure			
	Knowledge of training records and guidelines location, and auditing			
Environmental	Waste disposal guidelines for organic, halogenated, aqueous, and solids including location and record keeping			
	Spill remediation and disposal			
	Incident reporting guidelines and procedures			
Securing lab for night and weekend operation	Notifications, precautions, and reporting			
	Review of lab staffing requirements for different operations: PI present, 2 people in lab, only 9-5, single person in lab			
	Equipment shutdown			
	Reaction control and security			
Housekeeping	Glassware assembly and cleaning			
	KOH bath operation			
	Lab organization, equipment location, and cleanup protocols			
	Student and technique training on specific operations - not all mandatory			
Chemical storage	Alkyl Metal Reagents			
	Flammables/combustible cabinet location and security			
	Acid and base storage locations and containment			
	General reagent storage			
Lab techniques	Operation of vacuum manifold			
	Operation of -78^{o}C cold trap, including draining of the trap, set up of lines to reactors, and refilling cooling medium			
	Operation of recirculating chiller units, addition of ethylene glycol/DI water to			
	Respirator fit test and training complete and documented			
	Proper handling of silica gel and disposal of silica gel waste			
	Handling Alkyl Metal reagents			
	Operation of rotovaps			
	Use of solvent drying column system for THF, Et_2O, toluene, hexane and CH_2Cl_2			
	Use of THF still			
	Running Reaction under high pressure			
	Change out of gas cylinders including use of Teflon tape, appropriate torque, and			
	Determination of thread type on gas cylinders and regulator choice			
	Use of hot oil baths			
instrumental	IR operation and maintenance			
	NMR training completed and verified			
	LC/MS training completed and verified			
	GC/MS training completed and verified			