A1: General Work Environment	
A1.1.0	Work areas illuminated sufficiently to work safely
A1.2.0	Work areas clean and orderly
A1.3.0	Floors are maintained in clean & dry condition
A1.4.0	Heavy items stored on lower shelves
A1.5.0	Excess equipment is identified for disposal
A1.6.0	Storage at least 18 inches below and away from sprinkler head
A1.7.0	Illuminated exit signs working
A1.8.0	Work areas free from obstruction/trip hazards
A1.9.0	Alternate exits available where required
A1.10.0	Fire doors not blocked or wedged open
A1.11.0	Exit doors not blocked or locked
A1.12.0	Housekeeping meets Division & Laboratory expectations

B1.1.0	Properly working eyewash and/or safety showers available in close proximity (10 seconds or 100 ft), unobstructed, and inspected (F&O should be inspecting monthly).
B1.2.0	Incompatible chemicals are properly segregated: (1) Acid - bases separate, (2) Oxidizers - flammables separate, (3) Mineral acids separate from hydrocarbon solvents
B1.3.0	Time sensitive chemicals (polymer formers and peroxidizers) marked with open date, test date, and dispose by date
B1.3.1	Potentially shock sensitive, explosive, and reactive chemicals are clearly marked & segregated.
B1.4.0	Corrosive gas cylinders identified and inventoried (some have shelf lives)
B1.5.0	Chemicals are entered into HMMS, individual containers are bar coded, and the inventory is current (update every year)
B1.6.0	Question B1.6.0, "Lab Standard requirements met," not applicable to Physics Division.
B1.7.0	HAZCOM standards are met: (1) HAZCOM training documented, (2) Site specific training conducted to include PPE selection and use, (3) Secondary containers marked with chemical name and target organs affected
B1.8.0	Flammable LIQUID Storage Cabinets properly used: (1) No combustible solids (cardboard boxes, etc.) (2) No reactive metals (store in separate flammable cabinet) (3) No pressurized containers (aerosols O.K.)
B1.9.0	Chemical containers are properly barcoded
B1.10.0	Inactive fume hoods marked "Out of Service"
B1.11.0	Ventilation hoods vents/baffles kept free of obstructions that limit free air flow
B1.12.0	Ventilation hoods used with sash in appropriate position
B1.13.0	Container leaks are not evident
B1.14.0	Material Safety Data Sheets readily accessible (on web)
B1.15.0	All local exhaust devices (e.g., hoods, gas cabinets, flexible snorkles) current inspection
B1.16.0	Chemical storage minimized in actively used hoods

C1: Waste Generation and Disposal	
C1.1.0	Satellite area limited to less than 1 qt acutely hazardous waste and/or 55 gal of hazardous waste
C1.2.0	Waste operator is the operator of the waste generating process and training is current
C1.3.0	Satellite area is serving an active waste generating process(es)
C1.4.0	Satellite area is at or near the point of waste generation
C1.5.0	Satellite area records current and area maintained in orderly fashion
C1.6.0	Unknowns managed as hazardous waste pending characterization
C1.7.0	PCB waste storage limited to no more than 9 months
C1.8.0	Containers kept closed except during transfer
C1.9.0	Waste containers labeled properly
C1.10.0	Constituents of the waste described on the container label and log book
C1.11.0	Sinks and any floor or other drains properly labeled
C1.12.0	Containers compatible with waste
C1.13.0	No open conduit to the environment where spills may occur (e.g., floor drain routed to storm sewer may need protection)
C1.14.0	Excess metals, furniture and equipment have been green tagged and checked for PCBs prior to turning in to salvage
C1.15.0	Radiological Waste
C1.16.0	NA - Solid radiological waste staging area established (B25 boxes stored behind 6000)
C1.17.0	NA - Radiological waste containers are appropriately labeled (including bar code labels)
C1.18.0	NA - Waste container log sheet maintained and up to date
C1.19.0	NA - Radiological waste in B25 boxes in accumulation/staging area posted with "Controlled Area" label and yellow tag

D1: Personal Protective Equipment	
D1.1.0	Research Safety Summaries reflect PPE hazard assessment and specify proper PPE
D1.2.0	Eye and face protection available where needed: (1) Goggles and face shields for corrosives, cryogenics, (2) Industrial safety glasses with side shield for flying particles
D1.3.0	Areas requiring the use of eye protection posted and appropriate eyewear available at entrance
D1.4.0	Areas requiring the use of hearing protection posted and hearing protection available at entrance
D1.5.0	Respirator use: (1) User enrolled in respiratory protection program, (2) Determined by Industrial Hygiene evaluation, (3) Filter type determined by industrial hygiene

E1: Electrical Hazards	
E1.1.0	Access maintained for machine and emergency disconnects/shutoffs

E1.2.0	High Voltage hazards >50V are mitigated by proper covers and/or appropriate signage such as “High Voltage.”
E1.3.0	Circuit breaker/disconnect panels kept clear for 36 inches
E1.4.0	Cover plate in place for outlets, switches, junction boxes
E1.5.0	All electrical outlets are protected by circuit breakers.
E1.6.0	Extension cords in good condition with no damaged insulation or splices
E1.7.0	Ground fault circuit interrupters (GFCI) used for wet/exterior use
E1.8.0	Electrical panels are labeled
E1.9.0	Energized cords in good condition with adequate insulation.
E1.10.0	Cords are not lying in walkways or subject to damage and are in cable tray, conduits, or raceways when possible.
E1.11.0	Flexible power cords are not run through walls or floor openings or overhead above ceiling tiles
E1.12.0	Electrical tools are properly grounded or double insulated and in good general condition
E1.13.0	Safety interlocks tested and functional
E1.14	Approved Job Hazard Analysis for on or near electrical work, appropriate PPE and Qualified Electrical Worker training

F1: Compressed Gases	
F1.1.0	Toxic gas monitoring equipment available as needed
F1.2.0	Toxic, flammable, corrosive gases EVALUATED - release below IDLH or stored/used in ventilation hood /safety cabinet as appropriate
F1.3.0	Toxic gases point of use are under negative pressure and exhausted to ventilation system
F1.4.0	Cylinders labeled with contents
F1.5.0	Work area properly ventilated
F1.6.0	Flammable gas cylinder systems properly grounded
F1.7.0	Cylinders secured from tipping
F1.8.0	Cylinder carts available for transport
F1.9.0	Protective valve caps in place – when cylinder not in use
F1.10.0	Empty or unused gas cylinders promptly returned to supplier
F1.11.0	Flexible gas tubes not run through walls, floor openings or overhead above ceiling tiles

G1: Cryogenics	
G1.1.0	Personal protective equipment available to avoid skin contact
G1.2.0	Used/dispensed with good ventilation
G1.3.0	Containers vented or pressure relief devices provided
G1.4.0	Glass Dewar’s shielded

H1: Postings	
H1.1.0	Hazards, entry requirements, and contact information posted at the door
H1.2.0	Refrigerators/Freezers labeled "for food storage only"
H1.3.0	Ice making machines posted Not for Human Consumption as appropriate
H1.4.0	Fire Code Permits posted (when required)
H1.5.0	Obsolete signage removed

I1: Pressure Vessels and Vacuum Chambers	
I1.1.0	System components are commercially certified and rated for proposed pressures used
I1.2.0	Pressure vessels larger than six inches in diameter are code stamp
I1.3.0	Pressure relief valves are certified
I1.4.0	Pressure hoses and vent lines are positively secured
I1.5.0	Vacuum chambers are electrically grounded
I1.6.0	Glass or crystal ports are protected from accidental impact when under pressure or vacuum

J1: Lasers	
J1.1.0	Laser safety officer approval report is available in lab
J1.2.0	All lasers properly labeled
J1.3.0	Door postings
J1.4.0	PPE identified by laser safety officer report available and in good condition
J1.5.0	Interlocks and other warning devices functioning for high power lasers 3b and 4
J1.6.0	Appropriate laser training complete

K1: Fire Hazards	
K1.1.0	Exits operational, clear of obstructions
K1.2.0	Emergency lights functional
K1.3.0	Non exit doors labeled "Not An Exit" (required if door could be mistaken for an exit)
K1.4.0	Fire extinguisher locations are appropriate for work
K1.5.0	Fire alarms pull stations unobstructed
K1.6.0	Fire extinguishers unobstructed
K1.7.0	Fire extinguisher fully charged/inspected and appropriate for hazard class
K1.8.0	Fire extinguisher tamper indicator in place
K1.9.0	No Flammables cabinets in exit path
K1.10.0	Flammable gases volumes kept below 0.25% lower explosive limits
K1.11.0	Aisles and passageways kept clear-minimum of 28 inches

L1: Radioactivity: Radioactive Material Use Areas	
L1.1.0	RWP and radiological survey maps posted at access points as appropriate
L1.2.0	PPE, administrative and engineering controls identified in RWP present and operational
L1.3.0	Radiological postings in place
L1.4.0	Radiological materials restricted to Radioactive Material Area boundaries or properly labeled/tagged
L1.5.0	Radiological area boundaries marked with a rope, chain, tape or similar barrier
L1.6.0	Sealed source inventory current
L1.7.0	Sealed source integrity check done within last 6 months
L1.8.0	Lids on rad trash cans
L1.9.0	Gloveboxes posted with whole body and extremity dose rates

M1: Biological Hazards	
M1.1.0	Biological operations / exposures reviewed by Biosafety Committee and IRB, if required
M1.2.0	NA - Biosafety Level 2 Laboratory or above: laboratory posted and access restricted
M1.3.0	NA - Biosafety Cabinet in use currently certified for BSL 2 work
M1.4.0	Sharps program
M1.5.0	Biohazard waste, marked and segregated
M1.6.0	NA - Bloodborne pathogens training, if required
M1.7.0	NA - Human cell line work reviewed by IBC and IRB

N1: Ionizing Radiation: Generating Equipment	
N1.1.0	RWP (if applicable) posted at access points
N1.2.0	PPE, administrative and engineering controls identified in RWP present and operational
N1.3.0	Instrument posted appropriately
N1.4.0	Required interlocks tested and functional

N2: Non-Ionizing Radiation: Generating Equipment	
N2.1.0	Non-ionizing equipment survey available in the Laboratory
N2.2.0	PPE, administrative and engineering controls identified present and operational
N2.3.0	NIR hazardous areas posted with warning signs

O1: Confined Space	
O1.1.0	Confined spaces appropriately identified and labeled
O1.2.0	Permit Required Confined Spaces have permits for entry
O1.3.0	Confined space entrants and attendants are trained

P1: Elevated Work	
P1.1.0	Ladders have safety feet to prevent slipping
P1.2.0	Portable steps with more than three steps have handrail
P1.3.0	Fall protection systems available for elevated work greater than four feet

Q1: Hoisting & Rigging: Mechanical Lifting Devices	
Q1.1.0	Approved lift plan in place for all lifts
Q1.2.0	Load capacities are clearly marked on all lifting devices
Q1.3.0	Lifting devices have current quality inspection
Q1.4.0	Approved lifting attachments are posted on lift trucks
Q1.5.0	Lift device operator qualifications current
Q1.6.0	NA - Portable fire extinguisher on gas forklifts currently tested
Q1.7.0	Crane controls & cranes have corresponding directions posted (N,E,S,W)& controls are legible
Q1.8.0	Cranes have quality inspection sticker and documented user inspections (monthly if in use, every 6 months if standby)

R1: Machine Guarding	
R1.1.0	Start and Stop controls access not blocked
R1.2.0	Administrative, engineering safety controls posted/used in accordance with manufacturer’s recommendations
R1.3.0	Machine guarding in place and properly adjusted for rotating parts and pinch points
R1.4.0	External shielding provided when rotating parts need exposure to conduct work
R1.5.0	Administrative controls used where entry into operating test cells required
R1.6.0	Stationary equipment anchored to the floor if needed
R1.7.0	Interlocks and safety devices provided, operational and used where required

S1: Temperature: High/Low Surface Temperatures & Environmental Temperature Extremes	
S1.1.0	Workers have medical monitoring when required to work in temperature extremes
S1.2.0	Exposure to temperature extremes controlled by administrative, engineering or PPE controls
S1.3.0	Extreme temperature surfaces >50º C or <0º C have warning signs or labels or are insulated or protected from contact
S1.4.0	High temperature surfaces kept separate from flammables and combustibles

T1: Hotwork: Open Flame Work	
T1.1.0	Controls for designated hot work/welding areas specified in Research Safety Summary or F&O work plan. (Permits not needed for designated areas.)
T1.2.0	Hot work permit available where occasional open flame work conducted
T1.3.0	PPE, administrative and engineering controls in place as required by hot work permit