

Name(s) of Risk Team Members: P. Cirnigliaro, A. Etkin, R. Karol, E. Lessard, J. Maraviglia, D. Passarello, A. Piper, R. Savage, J. Scott, M. Van Essendelft		Point Value → Parameter ↓	1	2	3	4	5					
Area/Facility Description Title: Collider-Accelerator Department Area/Facility # (if applicable): Facility Wide – FRA 2		Occupancy or Use	≤once/year	≤once/month	≤once/week	≤once/shift	≥once/shift					
Area/Facility Description: Facility-Wide Fire		Severity	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability					
		Likelihood	Impossible	Unlikely	Possible	Probable	Multiple					
Approved by: <i>E. Lessard</i> Date: 5/17/04 Rev.#: 1		Reason for Revision (if applicable): FRA number added.					Comments:					
			Before Additional Controls				After Additional Controls					
Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Electrical Fire	Smoke And Heat	Fire detection & suppression systems; equipment protective systems; ASSRC/ESRC reviews; Fire Hazards Analysis; Fire stops; all equipment is listed or reviewed by CEE; Tier 1 inspections; maintenance; electrical & life safety code compliance; emergency procedures; EMTs & BNL fire rescue; removal of unused cable; ASE requirements	4	3	3	36	A Fire Protection Engineer has been added to BNL staff and he has begun formal Fire Hazards Analyses for C-AD facilities. The LINAC (building 930) has had a new Fire Alarm Panel installed and preliminary testing results identified that the system is operational. Final acceptance testing by the BNL Fire Protection and Plant Engineering Group has been scheduled. In addition, the replacement of approximately 6,000 faulty Edwards's 281A heat detectors lab wide is on schedule and is approximately 40% are complete for this year.	4	3	2	24	33 %
Flammable Liquid Fire	Smoke And Heat	Fire detection & suppression systems; procedures; training; chemical segregation; volume controls; fire cabinets; MSDS; Tier 1 inspections; volume controls; segregation controls; storage controls; ventilation; labeling; ignition source control	5	2	3	30						
Flammable/Explosive Gases Fire	Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; ASSRC/ESRC reviews; Fire Hazards Analysis; Tier 1 inspections; maintenance; emergency procedures; BNL Fire Rescue; ASE requirements; volume controls; segregation controls; labeling; area posting; gas detection interlock systems	4	5	2	40						
Combustible Material Fire	Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; all equipment is listed or reviewed by CEE; Tier 1 inspections	5	2	3	30						
Chemical Fire	Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; all equipment is listed or reviewed by CEE; Tier 1 inspections	5	2	3	30						
Reactive Metals	Smoke And Heat	Fire detection & suppression systems; procedures; training; ASSRC/ESRC/RSC reviews; Fire Hazards Analysis; emergency procedures; BNL Fire Rescue	3	4	3	36						
Dry Vegetation Fire	Smoke And Heat	Fire breaks; maintenance of fire breaks; procedures; training; BNL site-wide warning alarm system; Fire Hazards Analysis; Tier 1 inspections; Emergency procedures; BNL Fire Rescue	1	1	2	2						
Radiation Energy Deposition (Targets) - Fire	Smoke And Heat	Fire detection & suppression systems; procedures; training; equipment protective systems; ASSRC/ESRC/RSC reviews; Fire Hazards Analysis; emergency procedures; BNL Fire Rescue; ASE requirements; access control system; cooling water systems; target monitoring; radiation monitoring	1	1	2	2						
Further Description of Controls Added to Reduce Risk:												
*Risk:	0 to 20	21 to 40	41-60				61 to 80				81 or greater	
	Negligible	Acceptable	Moderate				Substantial				Intolerable	